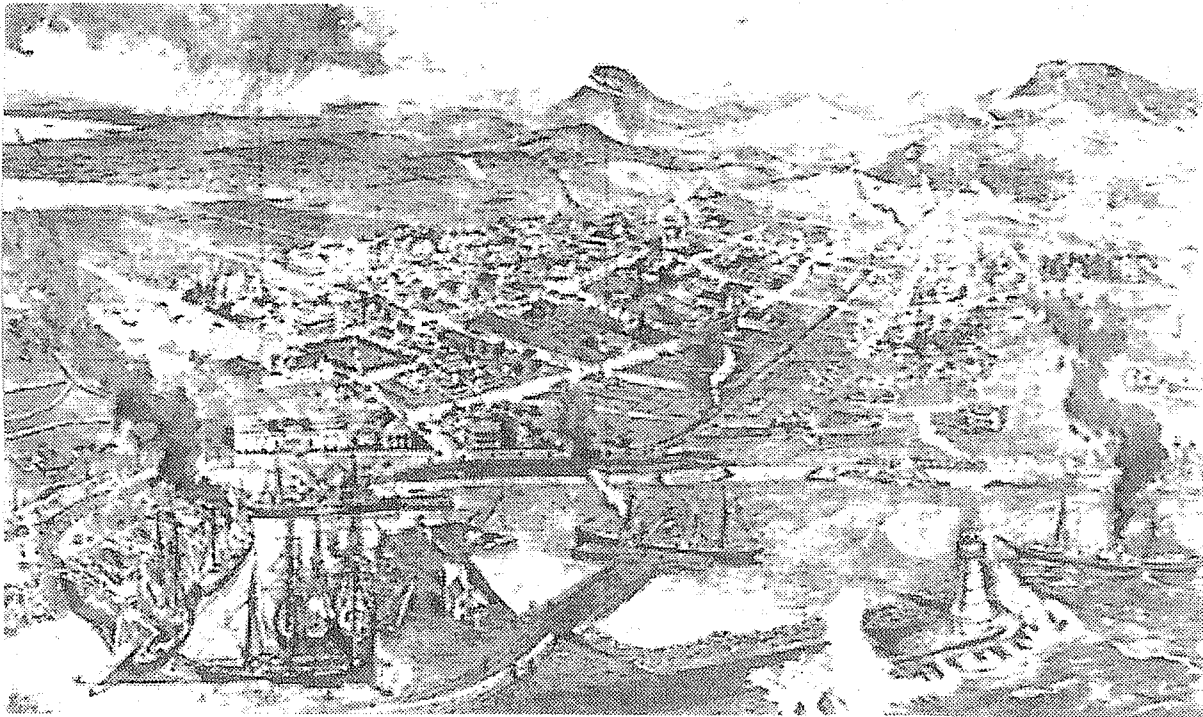


Doug Boleyn

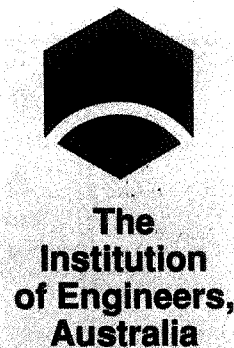
*Doug & Sheelah Boleyn
10 Noel Street
North Wollongong 2500
Phone 024229 4031*

**NOMINATION
FOR
HISTORIC ENGINEERING MARKER
WOLLONGONG HARBOUR
WOLLONGONG**



**THE AUSTRALIAN HISTORIC
ENGINEERING PLAQUING PROGRAM**

11 November, 1999



SYDNEY DIVISION

Commemorative Plaque Sub-Committee

The Institution of Engineers Australia
Engineering House
11 National Circuit
BARTON ACT 2600

Dear Sir/Madam,

**RE: NOMINATION HISTORIC ENGINEERING MARKER
BELMORE BASIN
WOLLONGONG HARBOUR**

Enclosed for consideration is a nomination for Belmore Basin at Wollongong Harbour.

The owner has been notified of the nomination and has indicated that the application is supported and will permit the placing of a plaque.

The nomination is in photocopy form at this stage, however a copy with photographs will be forwarded when all copies of original photos are available from Wollongong City Library.

The site is fully accessible in a public reserve.

Yours faithfully,

Don Cottee
CHAIRMAN
ENGINEERING HERITAGE COMMITTEE

\\HHC\FP01\GROUPS\DCottee\Inst of Engineering - Nomination.doc

Co
01
WOLLO
1834



**SITE OF WOLLONGONG HARBOUR
BELMORE BASIN 1834**

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WOLLONGONG'S FIRST HARBOUR BASIN IS BUILT

Captain [Latter Lieut. Col] George Barney, who is remembered for his civil engineering work in New South Wales, was instructed in February, 1837 by Governor Bourke to carry out the harbour works at Wollongong. A basin with a pier forming its northern side was substituted for the breakwater proposed in the 1834 plan. Later in the year about 300 convicts, accompanied by a guard of soldiers under Captain Plunkett were sent down to construct the basin. The convicts were housed in a stockade which they erected on Wollongong Head. This headland continued to be known as Stockade Point until a Flagstaff was erected thereon when it was called Flagstaff Point or Flagstaff Hill and in later years Signal Hill. There is also a Flagstaff Hill at Unanderra on which there was once a flagstaff used to relay the signals from Wollongong. By this means the folk of the district became aware of the shipping movements and were thus able to have their produce at the harbour in good time for shipment.

Work commenced on the basin on December 18th, 1837 and a writer in 'The Sydney Monitor' of May 23rd, 1838, who had visited Wollongong in the steamer 'William the Fourth', said the progress of the work was 'highly creditable to the directing officer.' He gave the dimensions of the proposed basin as 100 ft. long, 35 ft. breadth, and 14 ft. deep, and explained that the larger blocks of stone excavated from the Basin were deposited on the Pier and the rest of the spoil 'carted by the gangs to form a marine road round the sandy head of the bay which leads from the town to the intended dock'. Apparently, after construction commenced it was decided to increase the dimensions of the Basin, presumably to cater for the increasing trade of the port beyond that anticipated in the original design. Dr. George Underwood Alley in an article contributed to 'The Sydney Morning Herald' of December 16th, 1841 said 'Its dimensions are, from the point of the pier to the bank of the basin 300 feet; and from the same point across 350; the basin itself is 350 feet broad at its base... at high tide there will be 14 feet of water in the basin and eight feet at low tide.' These measurements are consistent with those of the existing portions of the first basin and pier. The correspondent said that the first stone was laid by Mr. Cronin, the Superintendent of the work, on May 23rd, 1839, and went to say: 'The pier is very neatly faced with cut stone and is finished in very workman like manner'. In referring to the work associated with the project, Dr. Alley said-

'The excavation of the basin through solid and intensely hard rock was most laborious, nor was the damming against such a force and constant pressure of water an easy matter; 'twas no schoolboy work; nor was the laying of the foundation of the pier, nor adjusting the facings with cut stone by means of the diving bell a light or unlaborious task.'

Dr. Alley prophesied:-

'Wollongong will not always remain a mere commercial entrepot, or port for export of agricultural produce only; it has the means within itself of becoming a manufacturing town.'

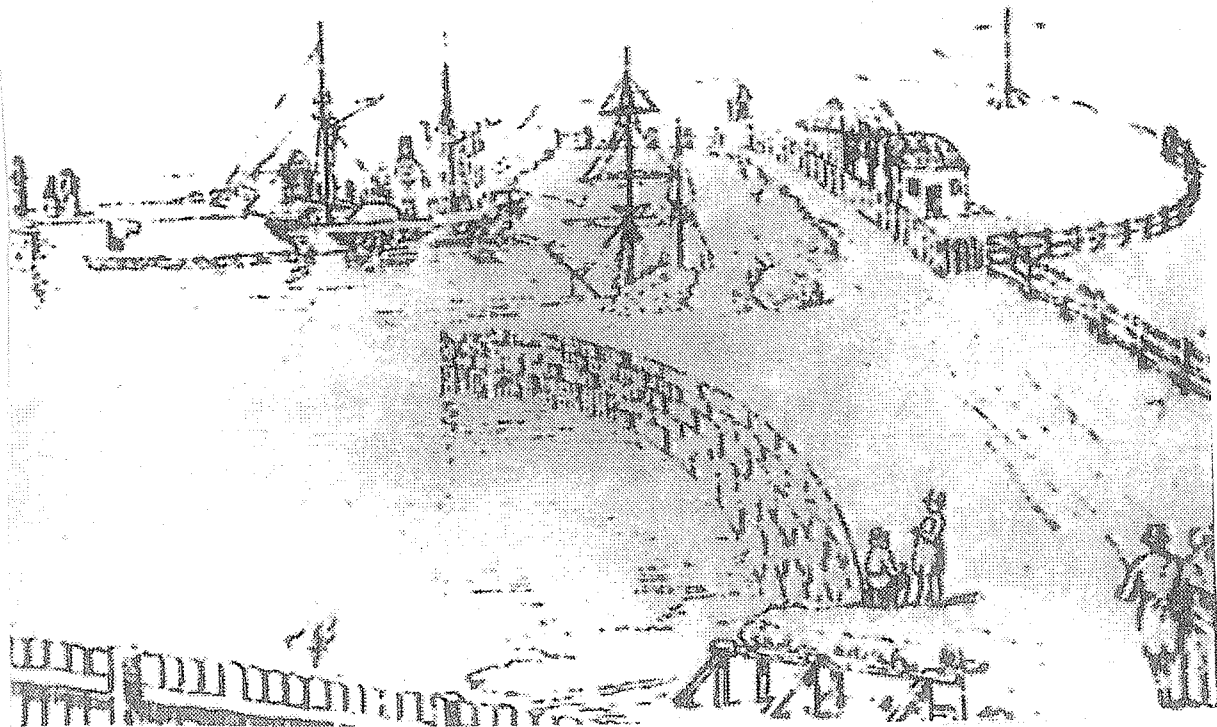
On April 9th, 1842, 'The Sydney Morning Herald' reported;

‘ The second or outer dam, necessary to complete the excavating of the basin of Wollongong Harbour, is within a few days of being completed, when the tide at low water will be under command, the remaining work will be comparatively light and not so precarious.’

A correspondent to ‘Sydney Morning Herald’ of November 25th, 1844 wrote;-

‘The harbour at Wollongong may now be considered completed. The house in the stockade have now been sold by the Government; That occupied by Major Macpherson and subsequently Captain Ramsbottom Was purchased by Dr. Cox for Nine Pounds and Fifteen Shillings. It is intended to be transferred to an allotment at Kiama’.

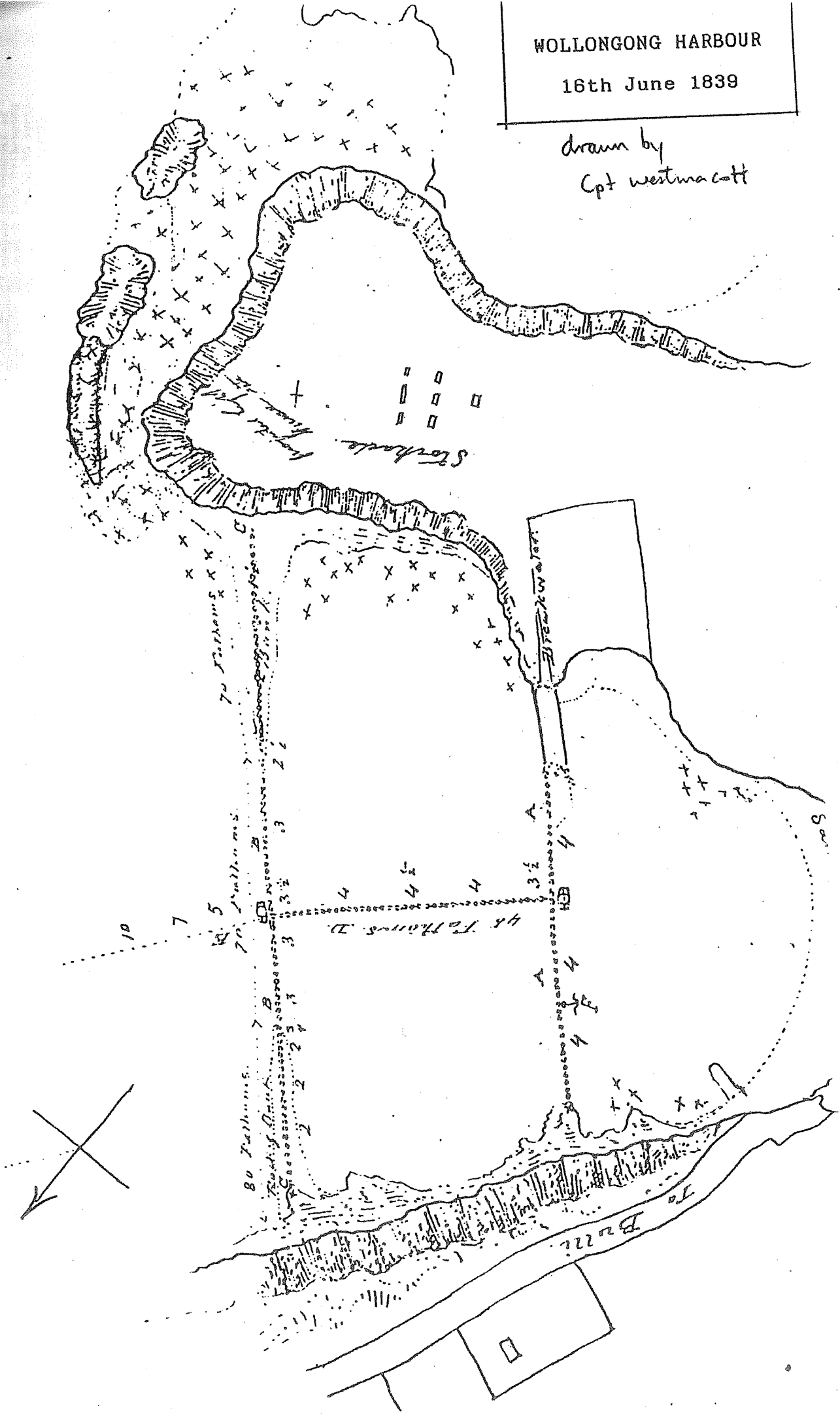
The work on the pier, the basin and its approaches took almost seven years to complete and cost in the vicinity of 3500 pounds.



WOLLONGONG HARBOUR

16th June 1839

drawn by
Cpt westmacott



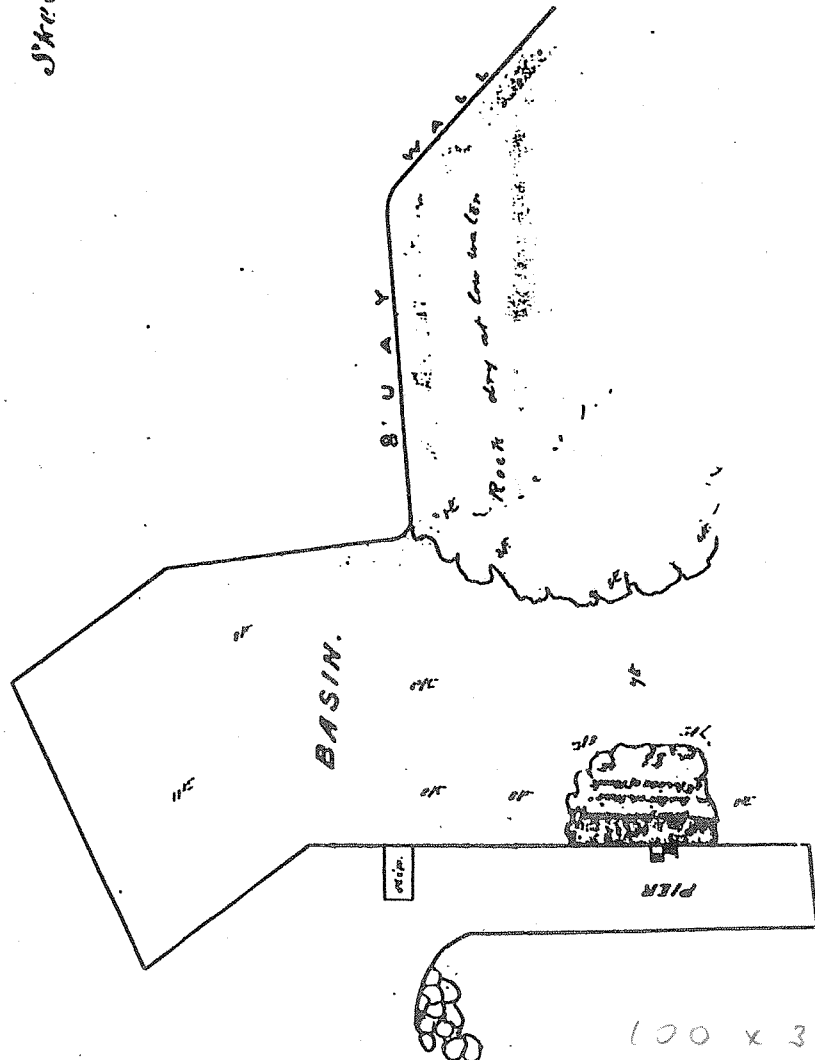
Wellingeng. Petition
respecting removal of
prisoners from Wellingeng
Breakwater. Rec'd. 30 April
1844. [Add203]

Sketch of the Wellingeng Breakwater showing
the position of rock which requires removing
in order to render it safe.

W. L. Ben Lee
assisted

April 19th 1844

note. The black sign on the Breakwater at low water



100 x 35 w x 14 deep

now
checked

W. L. Ben Lee

STATEMENT OF SIGNIFICANCE

Does the object have a high degree of technical and/or creative excellence?

Belmore Basin is a fine example of a Victorian harbour. The construction of the harbour is characterised by stone seawalls and retaining walls which remain intact and in very good condition today.

The construction was a major civil work of the time and was to be useful as a port for coal traffic for 70 years.

The harbour and the associated material handling systems with the two tramways to the area facilitated the economic take-off and the development of the industrial base of Wollongong.

The site remains a focus of community life in Wollongong.

Has it a strong social significance?

The immediate area is strongly linked to the establishment and growth of Wollongong. Wollongong is located a relatively short distance from Sydney, however being located on a narrow coastal plain flanked on the west by a steep and rugged escarpment was not served by an adequate or satisfactory road system.

The difficulties with the terrain saw the relatively late provision of land based infrastructure for the area's proximity to Sydney.

From the earliest times of the cedar getters and the development of rural industry, the present site was of focus of community life and the developing economy.

The area today is a site of environmental significance and has a strong association with the local community.

Does it demonstrate a way of life, taste, custom, process or function of particular interest?

The mineral wealth (coal) of the area was identified from early reports of exploration of the area.

The fortunes of the development of Wollongong is reflected in the progressive development of the harbour area and the construction of Belmore Basin.

The construction of Belmore Basin and its associated tramways and material handling systems permitted the economic take-off of the area as a coal and coke producer.

Belmore Basin was also important in providing improved communications and the further development of rural and mining industries.

Has it a strong association with important people and with a development or a cultural phase?

The site of Wollongong Harbour is important as the works covered out in the area represent the meeting of needs for a growing community from the earliest settlement of the area.

The progressive developments under two colonial engineers demonstrate the evolution of colonial construction methods.

THE ENGINEERS

- Captain George Barney: Construction of the original basin: 1837 – 1844
100 ft x 35 ft x 14 ft deep. Works carried out by convict labour.
- Mr E O Moriarty: Engineer in Chief of Harbours and Rivers –
Belmore Basin 1861 - 1868

DEVELOPMENT OF THE COAL INDUSTRY

- Captain Shoubert: Mt Keira Colliery, first opened in the southern coal field of NSW and first coal to be delivered to Wollongong Harbour.

Has it Landscape, townscape or environmental value, and in particular, has it a considerable degree of unity in its material, form and scale?

The basin walls and retaining walls are constructed from material on the site – constructed as an industrial harbour, today has pleasing aesthetics which are highly valued for recreation purposes and the commercial fishing fleet.

Is it enhanced by its setting? Does it contribute to its setting?

The Belmore Basin is home for the local fishing fleet. The stone walls and quayside areas and points of elevation originally established for rail haulage of coal provides an appreciation of the current function of the area and the magnitude of the original works in its time. The value of the site is reflected in its current interpretation and use. The site is classified by the National Trust and is listed on the National Estate.

It is a particularly fine example of its type?

It is a good example of a work of its type and is one of the few sites where the original works remain intact. The argued construction was a major state work in its time.

Has it original integrity or has it been extensively modified?

The site has its original integrity. Minor items such as the associated loading stocks and tramways have been removed.

Does it represent an important stage in development which influenced latter developments?

The site facilitated the industrial take-off of Wollongong. The area continued to prosper and Belmore Basin was significant until larger facilities were requested.

Does it demonstrate technological change?

Belmore Basin was developed as part of a mineral (coal) handling system. Its size saw it utilised for 70 years and the associated tramways and loading stocks greatly increased productivity over earlier manual handling of materials.

Belmore Basin is a fine example of a colonial coastal work.

THE CONSTRUCTION OF BELMORE BASIN

IMPROVED HARBOUR FACILITIES ARE COMMENCED

Wollongong's coal industry though in its infancy was making itself felt in the trade of the port, and in response to a petition of the inhabitants to the Government for improved harbour facilities, Sir William Denison, the then Governor-General, accompanied by Mr E O Moriarty, the Engineer in Chief for Harbours and Rivers, came to Wollongong in July, 1858 to attend to this matter. At this time, the depth of water in the old basin was 9 ft but due to the incomplete removal of the coffer dam used in connection with the construction of the basin, some of the remains of the dam at the entrance reduced the depth to only 5' 16". There were mooring chains across the harbour mouth and anchorage was unsafe. These mooring chains were affixed to stanchions let into the rocks on the western side of the harbour, and the remains of these stanchions are still visible today. In January 1859, plans and estimates for additional harbour accommodation, prepared by Mr Moriarty, were approved, and £26,892 was voted toward deepening to 10 ft of the old basin, the formation of a new basin opening into the existing one, and the formation of a breakwater for the protection of the outer roadstead. The new basin was to be 300 ft long, 102 ft wide, and 10 ft deep at low tide, and the stone excavated used for the formation of a breakwater. "Works of this character and magnitude were somewhat new to the colony" and though tenders were invited twice, on the first occasion in December 1860, no satisfactory offer was obtained. As the Government could not get the work done under one contract, it reluctantly had recourse to a system of smaller contracts for labour only, the Government providing the necessary plant. Work on the project commenced in August 1861 when the steamer "Kembla" brought down the necessary plant.

WORK ON THE NEW BASIN PROGRESS

During the progress of the harbour works, it became apparent that the original plans would prove inadequate "so rapid and wholly unprecedented had been the growth of the trade of the district, particularly the coal trade." Accordingly, the Government had to broaden its ideas of the port's requirements to meet the expansion in trade. In 1864, Parliament voted an additional £5,000 for increasing the size of the Basin from 300 ft by 201 ft, to 455 ft by 153 ft, and £3,000 for the construction of three high level staiths and railway connections from the staiths to the lines of the Mount Keira and Mount Pleasant Coal Mines. The staiths were platforms on the bank adjacent to the basin, elevated so as to empty the contents of the coal hoppers by means of chutes into the ships' holds. Because of the exclusion of vessels from the old basin during the excavation of the new basin, temporary wharf accommodation had to be provided in the form of a timber jetty 550 ft in length. Hitherto, coal had been sent to Sydney in small vessels for purposes of transshipment to foreign ports, and to meet the berthing requirements of larger ships having deeper draught, Parliament was asked, in 1866, for £10,000 for deepening the basin to 18 ft. However, the inner basin only was deepened to 18 ft and the other basin to 14 ft at low water or spring tides. There is in existence an excellent photograph of the basin in construction, showing the coffer dam in position.

When completed in 1868, there were three staiths capable of loading 3000 tons of coal per day and there was 1748 feet of wharf frontage "enough for about 15 vessels", and the area of the two basins 3 acres.

COUNTESS OF BELMORE NAMES THE BASIN

After taking seven years to construct at cost of £44,892 the new basin was opened on Tuesday, 6th October, 1868, and this was one of the great events in the history of Wollongong. A special reporter for the "Sydney Morning Herald" emphasised that "Three great events – the Governor's visit, the Races, and the opening of the harbour coming together, created a most unusual commotion in the picturesque little town of Wollongong. The streets were thronged with visitors from the country and the public houses hung out signals of festivity in the shape of many-coloured banners".

On Monday, in the afternoon, His Excellency the Right Honourable Somerset Richard Lowry-Corry, Earl of Belmore, accompanied by the Countess of Belmore, Commodore Lambert, Mrs Lambert, and Captain Beresford were met at the foot of Plunkett's Hill with a large body of equestrians who escorted the party to Queen's Hotel in Market Square. The Vice Regal party had travelled overland and the meeting place, Plunkett's Hill, today is the hill in Corrimal on which the Church of St Columbkille's stands, on the western side of Princes Highway with the cemetery and the Public School on the opposite side.

About 10 o'clock in the evening, the Government steamer *Thetis* arrived with other important persons, including Hon James Byrnes, Minister for Works; Mr E O Moriarty, Engineer in Chief of Harbours and Rivers; Mr J Whitton, Engineer in Chief of Railways and Mr Bennett, Engineer of Roads. The Steamer "Hunter" arrived from Sydney about 5 a.m. on the morning of the great day "with a multitude of visitors". The other vessels in port on the occasion were *Chr. George*, *Comet*, *Uncle Tom*, *Rebecca*, *Little Pet*, *Spray*, *Nowra*, *Hirondelle*, *Lurline* and *Lady of the Lake*.

The official party embarked on the *Thetis* and the *Hunter* took on as many passengers as could be carried. The two vessels steamed half a mile or so toward the Five Islands, then returned to the Basin. *Thetis* glided to her berth and Lady Belmore named the basin "**Belmore Basin**" by breaking a bottle of champagne on the bow of the ship. A luncheon followed at the Brighton Hotel with Mr Charles Throsby Smith, Mayor of Wollongong, as Chairman. Speeches were indulged in and after the function the Vice Regal party set off by road for Kiama. On the following day, the 7th, the Governor returned to Wollongong and held a levee at the Queen's Hotel.

Although the Basin was officially opened on October 6th, 1868, it was in use somewhat prior to this. Robert Houslar, the Officer in Charge of Wollongong Pilot Station at the time made this laconic entry in his Journal on the day of the historic event - "New Harbour opened by the *Thetis*".

Races were held on the three days, Tuesday, Wednesday and Thursday, on a course near Tom Thumb Lagoon, and very little work could have been done in Wollongong during the festivities because the coal ships did not commence to leave until the races were over. The winners may be ascertained on reference to the files of the "Sydney Morning Herald".

It is worthwhile now to look at a few figures to gain some idea of the volume of trade passing thorough the Port about this time. In 1867, coal exports, exclusive of bunker coal, amounted to 23,538 tons, but in 1868, the year in which the new harbour works were opened, the tonnage advanced to 31, 443. Ten years later, in 1878, the tonnage had all but trebled to 92,546. During the six months to October, 1868, an average of 68 vessels were cleared each month, or 17 weekly, and during the later three months 29 different ships made in all 199 visits. The steamers *Hunter*, *Kembla*, *Kiama* and *Illalong* were the most frequent visitors in that order, and the remainder of the ships were mostly schooners and ketches. At this time, the steamers were catering for the passenger and general trade, while the sailing ships were mainly engaged in carrying coal.



PHOTO 1

Construction of Belmore Basin
Looking West
Showing Temporary Levee (Timber & Rock)

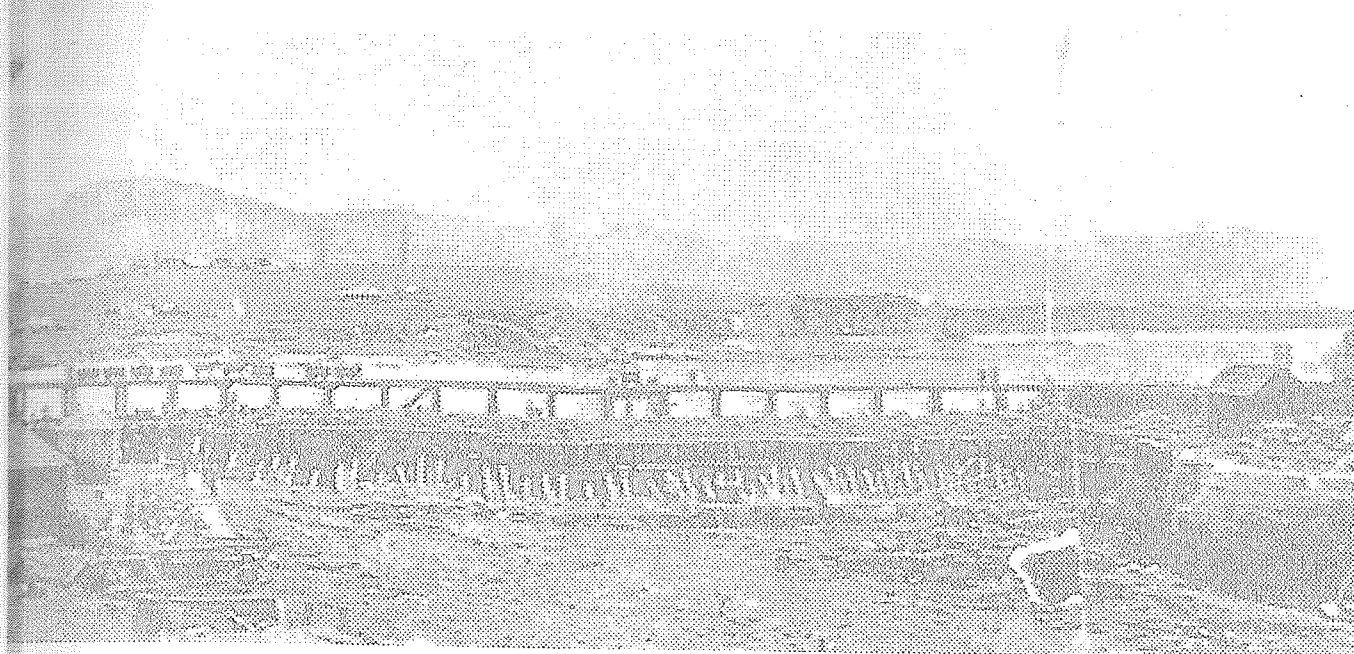


PHOTO 2

Construction of Belmore Basin
Looking West
Showing Temporary Levee (Timber & Rock)
Basin Floor partly cut down



PHOTO 3

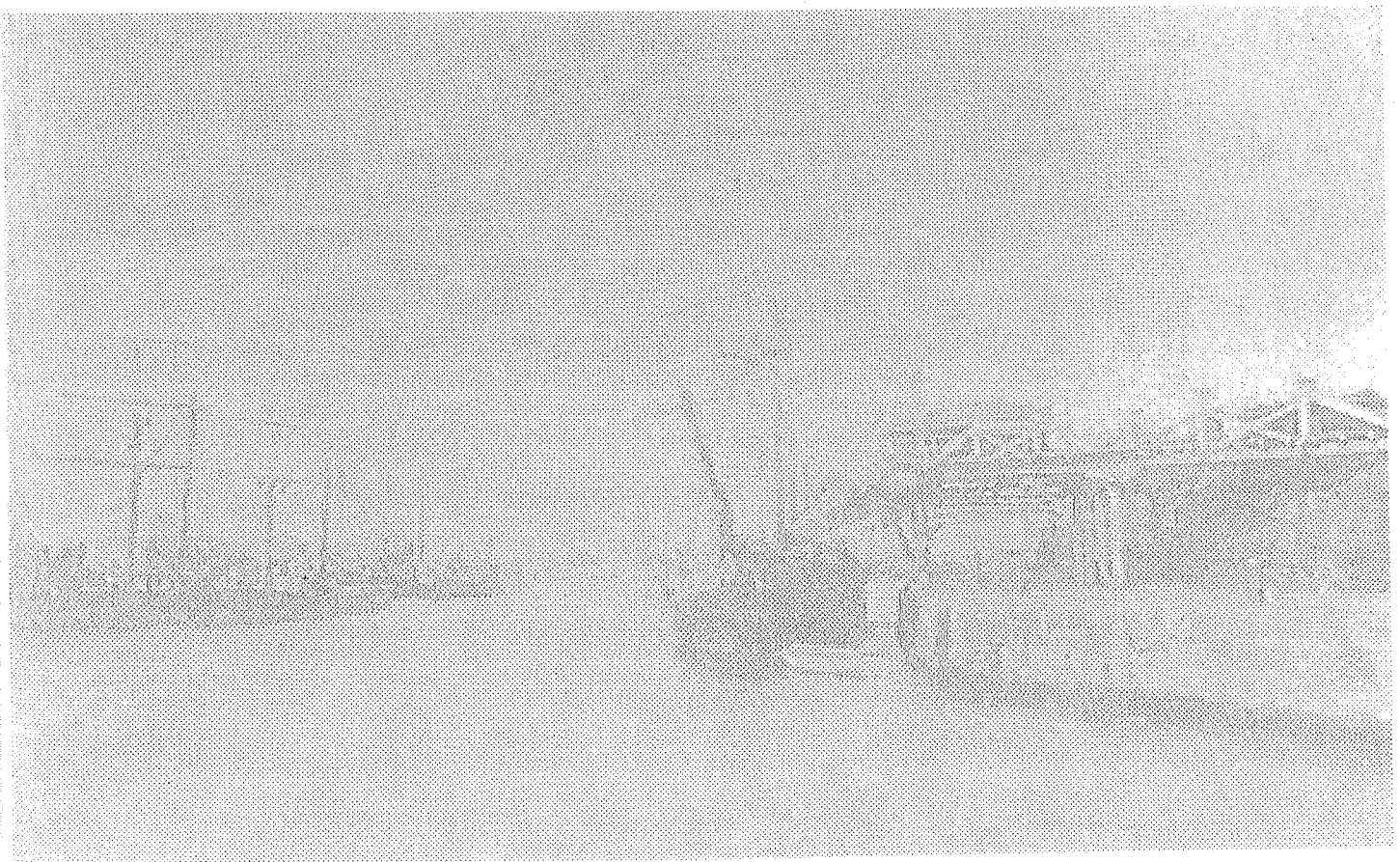
Construction of Belmore Basin

Showing - Stone Retaining Wall Construction
- De-watering Pump on left



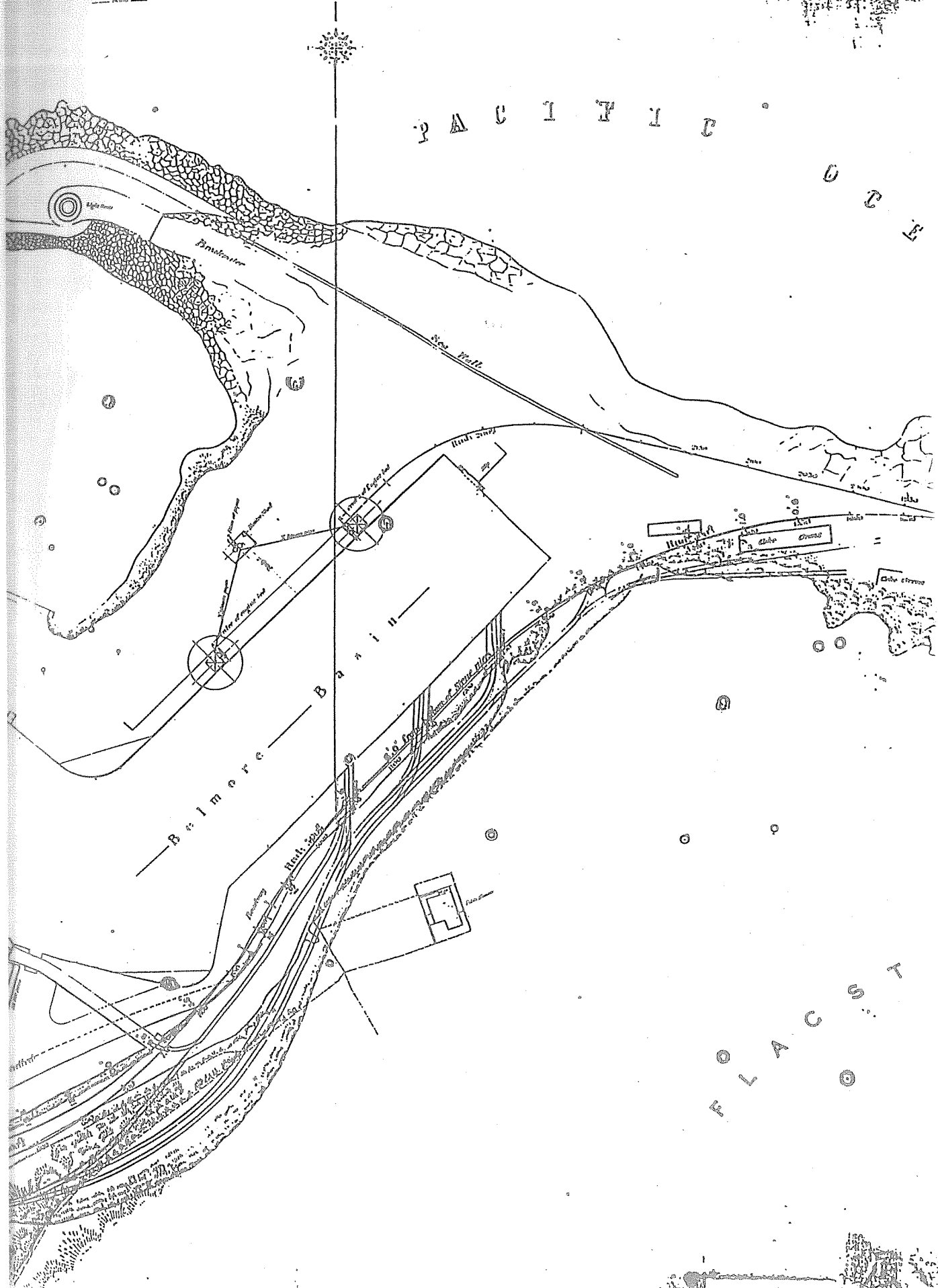
PHOTO 4

Belmore Basin
Showing Loading Staith details



SURVEY FOR
Additional Sidings
ONYONE COAL STATIONS

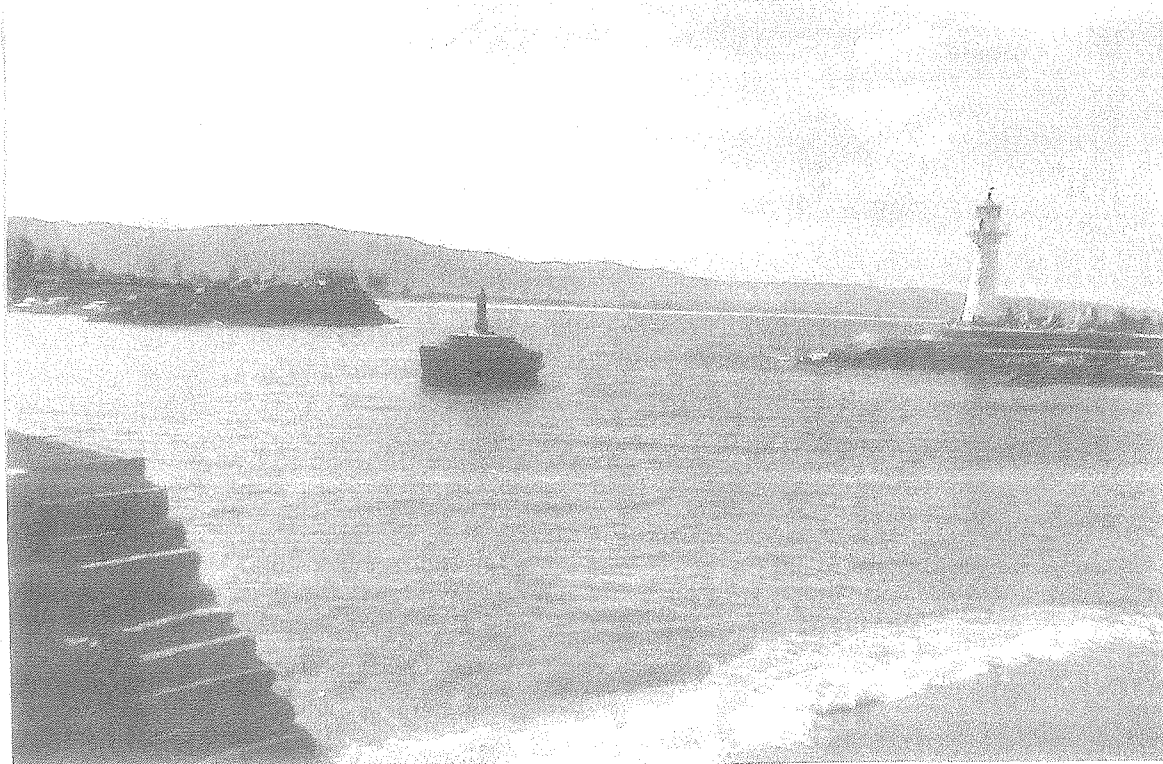
c. 1881



Belmore Basin – Nomination for Historic Engineering Marker
Photo Records of Site 1999



Breakwater & Lighthouse



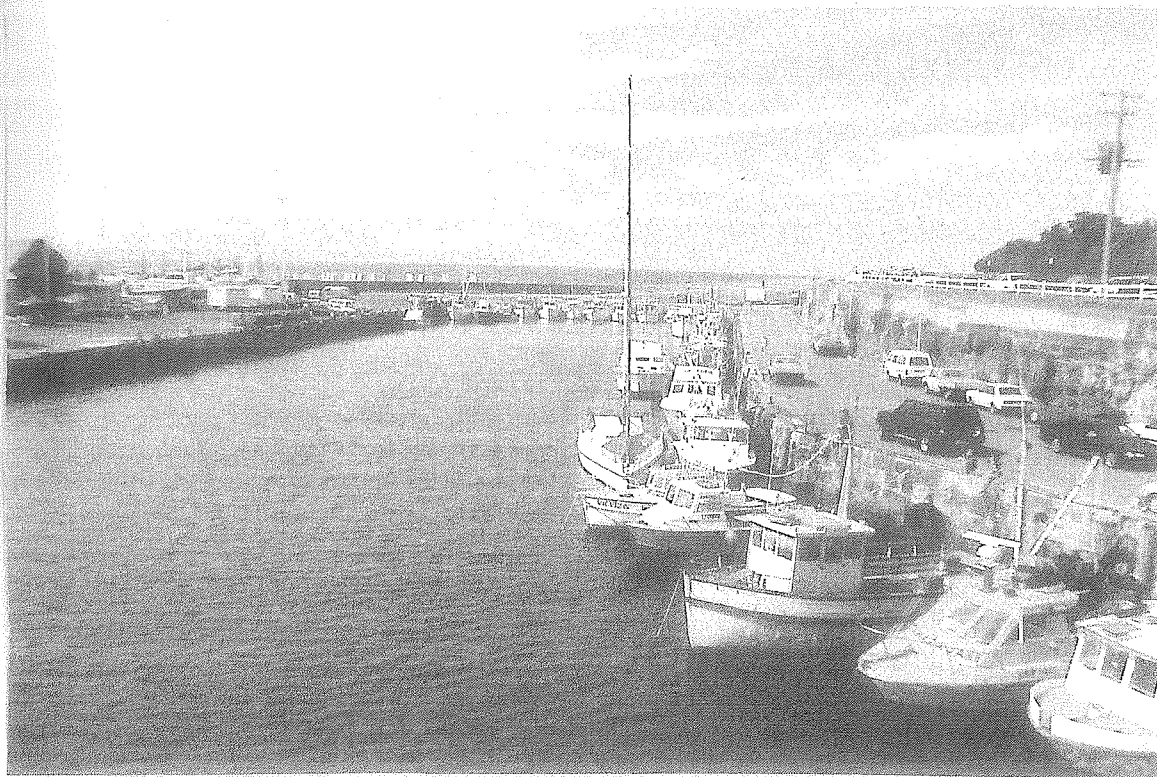
Breakwater Lighthouse – Pivot Point of Crane Site of Former “T” Wharf

Belmore Basin – Nomination for Historic Engineering Marker
Photo Record of Site 1999



Formation – Mt. Pleasant Tramway, near Harbour

Belmore Basin – Nomination for Historic Engineering Marker
Photo Records of Site 1999



Belmore Basin Looking East – Showing Part of Stone Work in Sea Walls



Belmore Basin Looking East – Showing Retaining Walls and Headstocks of Former Loading Staiths

Belmore Basin – Nomination for Historic Engineering Marker
Photo Record of Site 1999



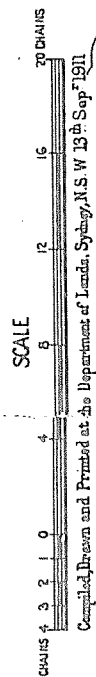
Loading Staith – Headstock Detailing



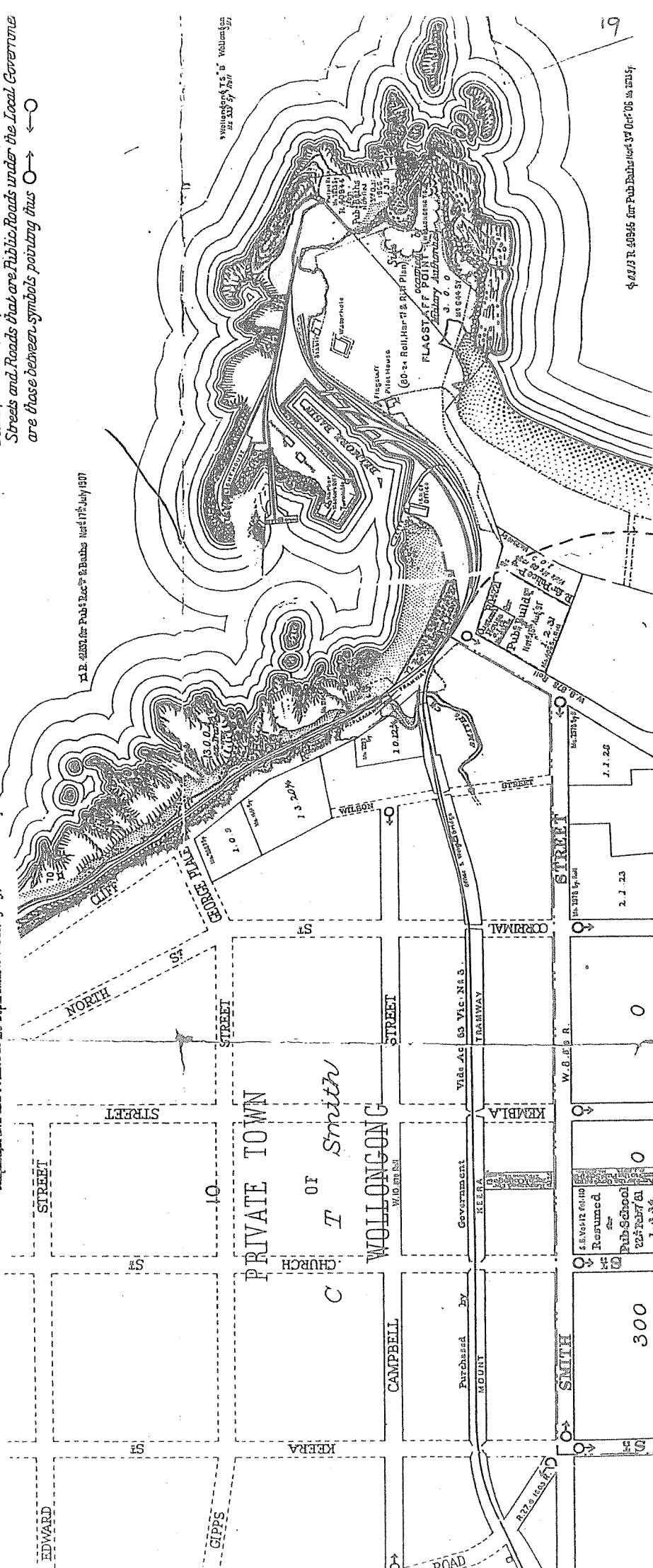
Loading Staith – Headstock & Retaining Wall Details

Note

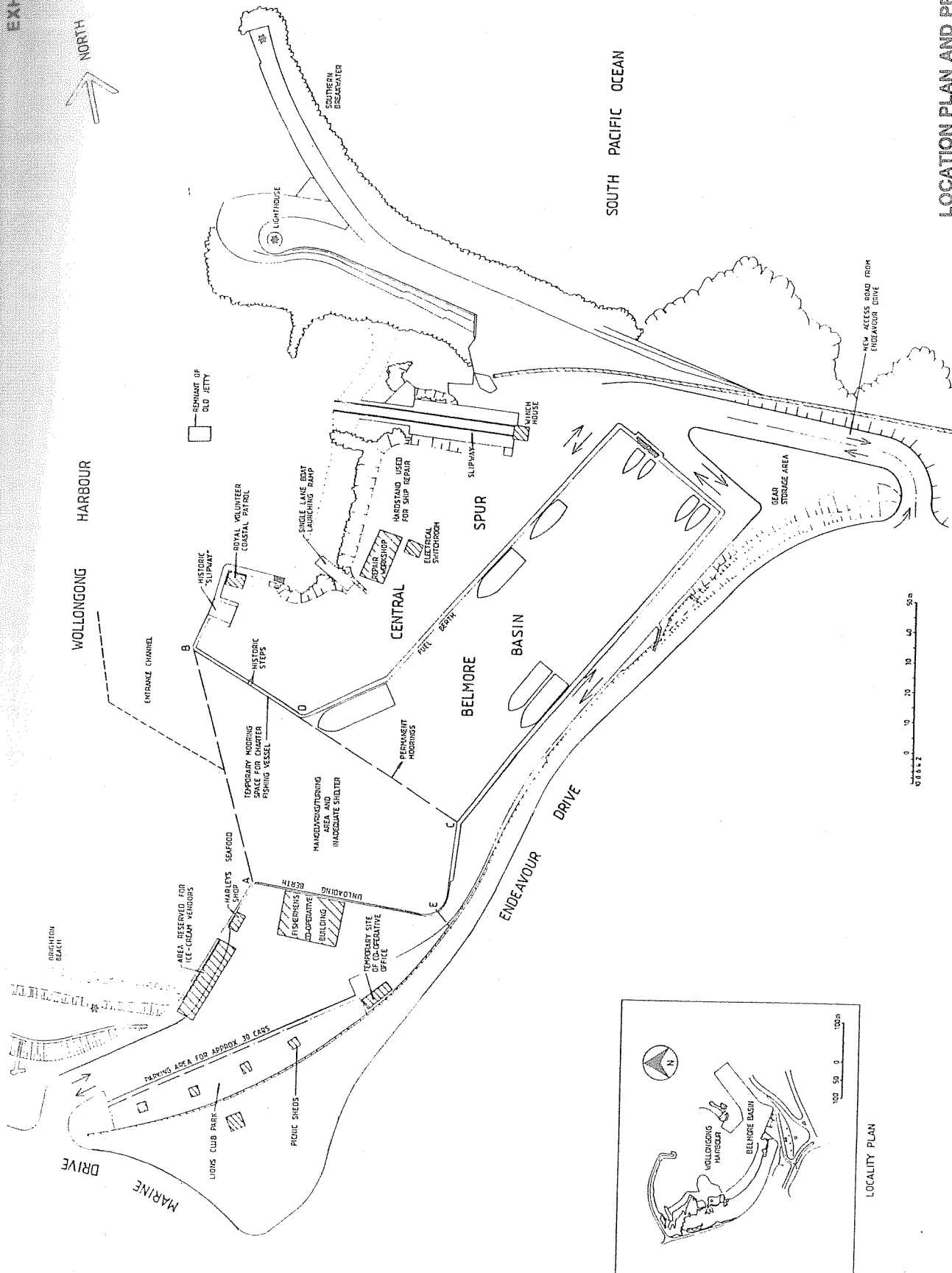
Proclaimed w/ Town/20th/March/1885
 Town/Boundaries shown thus: --- Nov.th 20th March.
 Reserve Do: ---
 Boundaries under Towns Police Act/Proc.th 27th Septemr.
 identical with Wollongong Municipal boundaries
 within Wollongong Municipality/Proc.th 23rd February/21
 Town/Lands reserved from Occ.th for Min^{rs} Res.th or Bus.th #2
 Reserve from Sale, Lease & License boundaries shown thus: ---
 Streets and Roads that are Public Roads under the Local Government
 are those between symbols pointing thus ○ → ← ○



Compiled, Drawn and Printed at the Department of Lands, Sydney, N.S.W 13th Sep^r 1911



EXHIBIT



LOCATION PLAN AND PRESE
ACTIVITIES IN BELMORE BASIN

CHRONOLOGY OF HARBOUR DEVELOPMENT

- 1833 Ship builder John Cunningham had 1 acre on the south side of Wollongong Harbour. It was used as a shipbuilders yard with his cottage on site. When the harbour works were in progress in the early 1840's a blast is said to have destroyed Cunningham's house [Shaw].
- 1834 Plan for Town of Wollongong laid out by T.L. Mitchell with the boundaries of Crown, Keira, Smith and Harbour Streets.
- 3/3/1834 Harbour or bight is being neglected, ballast thrown in; cedar shipped out [S.M.H.][At a latter date this ballast formed the foundation for the breakwater].
- Dec 1837 First Harbour Improvements commenced, first stone was laid by the Superintendent of works Mr. Cremin, a stonemason 23/5/1839 Harbour completed 1842 [Jervis] 300 convicts were employed on Harbour works and housed on Flagstaff Point. [Gardiner-Cremin]
- 1839 Mooring chains were laid in Wollongong Harbour during construction to allow vessels up to 300 tons lie in safety. Years latter a second lot of mooring chains was affixed to stanchions let into the rocks on the western side of the harbour, the remains are visible today.[Shaw].
- 12/5/1839 At the harbour..... the jetty is about 50 yards long with 50 yards to be ; there is an excellent store of local stone which will serve to make better breakwater. The harbour is being constructed to Major Barney's plan but will need to be extended in about 5-7 years, cost estimate 10,000 pounds. [Illawarra Diary of Lady Jane Franklin 10-17 May 1839].
- 23/5/1839 Wollongong Steam Co. buys steamer Maitland, for regular service [TA]
- 21/11/1840 Steam Co. raises fares Sydney-Wollongong, small settlers determined to travel by land.[TA].
- 13/7/1841 Breakwater approaching completion, steam boat for Sydney to run twice weekly. [TA]
- 1841 Boat steamer William IV ;left wharf in Sydney at 8 pm arrived Wollongong at 5 am, 9 hours, a fast passage [sometimes 15 hours] steamer anchored off the beach and passengers landed in boats-ladies and children were carried ashore by crew. Prisoners were excavating the basin coffer dam to hold back the sea [IM 9/10/1888].
- 27/1/1842 Illawarra Steam Navigation [ISNC] formed at schoolhouse 5,000 pounds in 5 pound shares.[SMH].
- 11/2/1842 ISNC offered steamer to assist trade carried out by five small coasters [SMH]
- 29/11/1843 Harbour - 300 pounds on supplementary estimates completion of basin [SMH]
- 8/3/1844 Six vessels in Wollongong Harbour taking cargo. [SMH]
- 11/3/1845 Governor visits district with party including Darke, Government Surveyor, to examine breakwater and to determine best pass down the Mountain at Bulli. [SMH]

INSTITUTION OF ENGINEERS-NOMINATION HISTORIC ENGINEERING MARKER-BELMORE BASIN

- 19/11/1861 Gang on strike for 8 shillings per day , offered 7 shillings but being paid 6 shillings.[IM]
- 28/8/1863 Harbour works at standstill. [IM]
- 24/1/1865 Harbour works in progress. New basin being built. [IM]
- 1865 Belmore Basin Free harbour . In 1865 tonnage dues- used by Hunter Coomerang, Kiama, Kembla Star of the Evening and Illawong. Sailors were Catherine Agnes, Christopher George, Catherine and Centurion. Sailors..... all took coal. Tonnage dues discontinued 1873 [IM 14/6/1890]
- 30/11/1866 Wollongong Harbour basin ; coffer dam ready-basin to be pumped out . [IM]
- 7/12/1866 Harbour works delayed. [IM]
- 9/10/1868 Earl Belmore visits to open harbour- called Belmore Basin, on Monday 5 th October 1868. Original basin excavated by prisoners, [convicts] in Gov. Gipps' time. [IM]6/10/1868
Lady Belmore broke a bottle of champagne on the bow of government Steamer Thetis and named the basin. [Gardiner-Garden]
- 1869 Breakwater built- Wollongong Harbour[Breakwater on which light house is sited]. B Rogers
- 3/6/1870 Lighthouse preparations being made for erection by Anderson [IM]
- 12/7/1870 Government steamer 'Thetis' arrives at Wollongong Harbour with Moriarty, Engineer of Harbours, to select site of lighthouse. [IM]
- 2/8/1870 Breakwater lighthouse- foundations laid in concrete. [IM]
- Late 1871 The breakwater lighthouse in Wollongong Harbour was completed . The tower , which is 42 feet high was constructed of ½ inch boiler plate and the illuminating apparatus was originally lit by acetylene and showed a fixed light' visible from the deck of a steamer about 12 miles' [officially 10 nautical miles in clear weather]. [Shaw]
- 1873 Tonnage dues discontinued. Pilotage, harbour and light rates then commenced and still in force. [IM 1890]
- 1875 William Ahern and James Osbourne establish Coke Works near harbour.
- 14/6/1878 Mount Keira Railway line and sleepers being laid to take locomotives- iron rails to be used- wagons 6 tons each. [IM]
- 19/7/1878 Steam tug sought Wollongong .[IM]
- 10/10/1878 Steam tug wanted to tow colliers out of harbour. [W A]
- 23/1/1879 Mount Keira railway; locomotives arrive from Sydney-expect new era at Wollongong. [W A]
- 6/5/1879 Keira and Kembla locomotives for Mount Keira fitted up. [IM]
- 27/6/1879 Wharf : waiting room wanted because of rain , mud. [IM]
- 3/8/1879 Harbour works: permanent railway beside Belmore Basin and on towards Pulpit Rock. [IM]

INSTITUTION OF ENGINEERS-NOMINATION HISTORIC ENGINEERING MARKER-BELMORE BASIN

- 27/11/1879 Two locomotives installed on Mount Keira railway to haul coal trucks to harbour-Captain Osbourne's property. [WA]
- 1880's Norfolk Island pines planted on Brighton Lawn
- 16/1/1880 New Tee Jetty to be built between old pier head and lighthouse by J.K. Taylor. [IM]
- 1880 Increasing traffic of the Port required the addition of a Tee Jetty which was equipped with a crane operated steam winch and vertical boiler. The crane column was mounted on a substantial concrete base which still remains. The timber jetty has been demolished. A masonry sea wall was constructed to protect the railway to the jetty and a stone in the wall is inscribed 'erected 1881'. The wall is 12 feet high and runs from near the breakwater to the cliff. A rubble embankment once connected it to Pulpit Rock. Another 12 feet wall was built between Pulpit Rock and the base of the cliff. Both the 12 ft walls still stand in good condition. [Gardiner -Garden]
- 27/4/1880 Steam Cranes begin to operate at Belmore Basin. [IM]
- 10/9/1880 Wollongong Harbour- need to accommodate large vessels- militates against coal trade. [IM]
- 16/9/1880 Steam tug for Wollongong Harbour-tenders called for. [WA]
- 1/6/1882 Illawarra Steam Navigation co. [ISCN] served Wollongong and southern ports to Eden-use Wollongong coal. [WA]
- 22/8/1882 New crane on new jetty at lighthouse tested. [IM]
- 15/8/1883 Harbour – tug tender accepted. [WA]
- 1/9/1883 Tug dispatch a steamer – 30 horsepower to be stationed in Wollongong. [WA]
- 23/4/1884 Kurrara new steamer collier for Mount Keira trade arrived from Cardiff. Kanahooka, sister ship, expected soon. [WA]
- 10/5/1884 Kanahooka built in Rotterdam for Osbourne –Wallsend colliery, arrived in Port Jackson. [WA]
- 17/5/1884 M.H.Moriarty assistant engineer for Harbours and Rivers, seeks to rebuild the old coke works which has been idle many years. [WA]
- 8/2/1885 Two mines produce 1000 tons a day at Wollongong. "Untold mineral wealth was still undeveloped in our mountains , with the event of the railway and adequate harbour accommodation industries of every description would spring into birth' said William Hobson.[IM]

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Records.

Local Studies Library. Photographic and Map

3014-11/2008
11 November, 1999

The Local History Librarian
Wollongong City Library
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SOUTH COAST MC NSW 2521



**The
Institution
of Engineers,
Australia**

SYDNEY DIVISION

Dear Sir/Madam,

**The Australian Historic Engineering Plaquing Programme
Nomination of Belmore Basin Wollongong**

The Institution of Engineers, Australia established the Australian Engineering Plaquing Programme to acknowledge past engineering achievements and to draw public attention to significant contributions they have made to society and the engineers responsible.

The Engineering Heritage Committee of the Institution of Engineers Sydney Division is preparing a nomination for Belmore Basin.

The Institution is seeking consent of Wollongong City Council to place a plaque on Belmore Basin Wollongong.

In preparing the proposal document I wish to use some illustrations held in your archives at Wollongong City Library. Copies of the proposal are transmitted to the owner, the National Committee on Engineering Heritage, and the library at the Institution's office in Canberra.

To finalise the preparation of the document I seek permission to use the following material: (Photocopies have been attached for ease of identification).

PO 4589.jpg	Wollongong Harbour, Harbours and Shipping Cranes
PO 4591.jpg	Wollongong Harbour, Harbours, Ships and Shipping
PO 2776.jpg	Wollongong Harbour Wollongong Gaol, Harbour Street, Cliff Road, Wharves, Ships and Shipping
PO 6413.jpg	Wollongong Harbour, Harbours, Ships and Shipping
PO 2770.jpg	Wollongong Harbour, Belmore Basin, Building and Construction, Coal Transport, Railways
PO 2767.jpg	Wollongong Harbour, Coal Transport, Railways
PO 2769.jpg	Wollongong Harbour, Belmore basin, Building and Construction Bustle Farm House
PO 4621.jpg	Wollongong Harbour, Harbours, Belmore Basin, Building and Construction Smiths Hill
PO 4579.jpg	Wollongong Harbour, Harbours, Coal Transport, Railways, Ships and Shipping

PO 4612.jpg Wollongong Harbour
PO 2764.jpg Wollongong Harbour

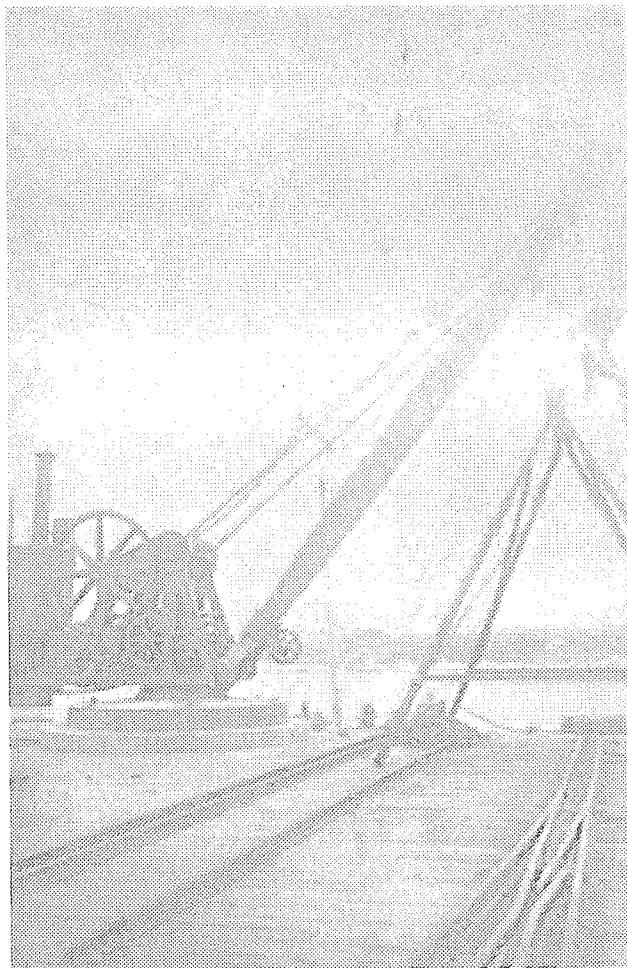
Additionally I would like to purchase copies of the photographs for preparation of the nomination document.

Contact details: **Don Cottee**
 Manager Public Works & Infrastructure
 Hunters Hill Council
 PO Box 21
 HUNTERS HILL NSW 2110

Phone: (02) 9879 9401
Fax: (02) 9809 7338

Yours faithfully,

Don Cottee
CHAIRMAN
ENGINEERING HERITAGE COMMITTEE



S:\IMAGELIB\LOC_HIST.PIC\jpeg\P04\P04589.jpg

..TITLE WOLLONGONG - Harbour
..NOTES Crane and donkey engine on the old T Jetty at Wollongong Harbour
..SUBJECT WOLLONGONG HARBOUR, HARBOURS, SHIPS AND SHIPPING, CRANES
..ACCESS For reproduction apply to Wollongong City Library
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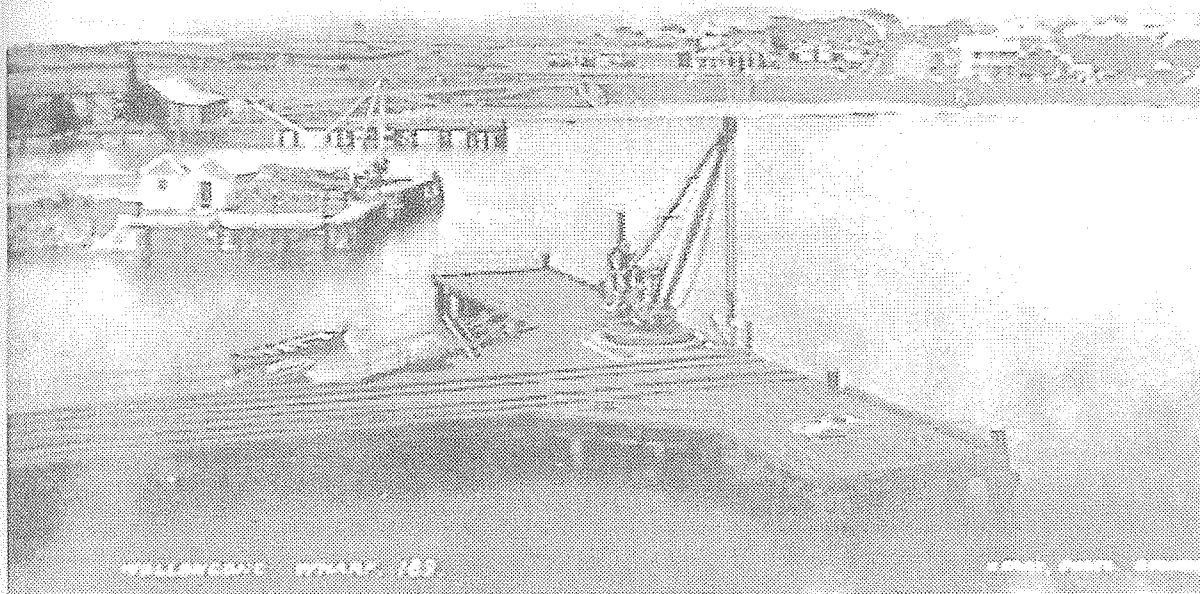
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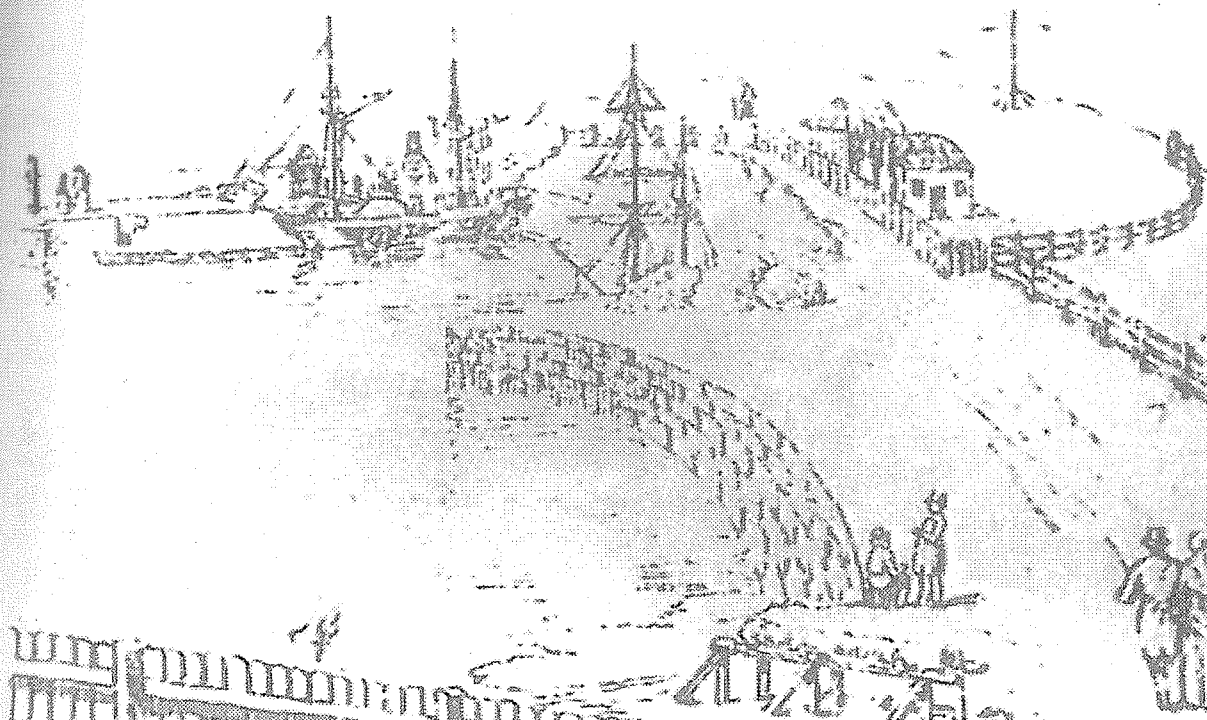
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..TITLE WOLLONGONG - Harbour and Vicinity
..NOTES Title on photograph: Wollongong Wharf. 189. Kerry Photo. Sydney
..SUBJECT WOLLONGONG HARBOUR, WOLLONGONG GAOL, HARBOUR STREET, CLIFF ROAD
 WHARVES, SHIPS AND SHIPPING
..ACCESS For reproduction apply to Wollongong City Library
..SERIES Kerry Photos
..NEGNO FM2/189/4/24
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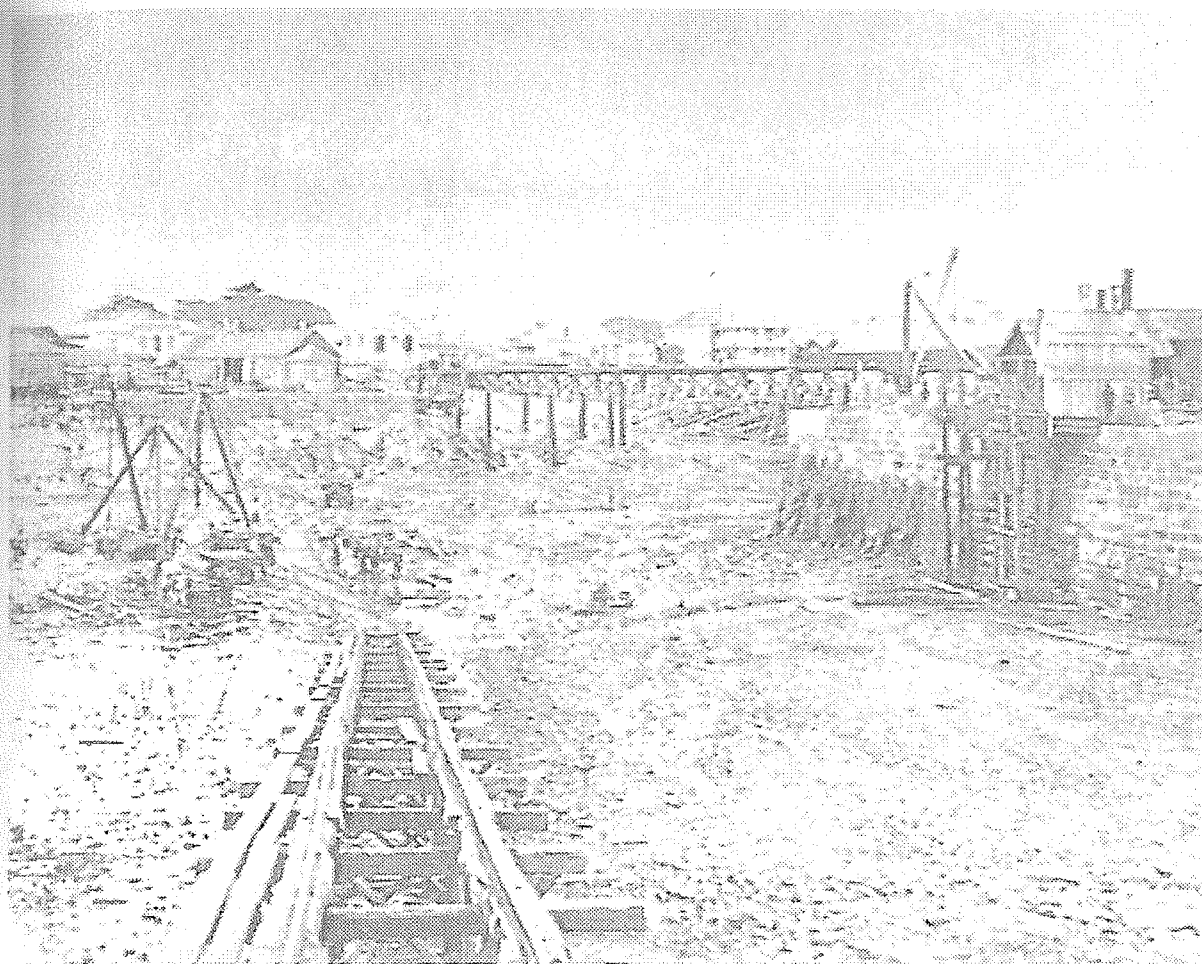
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S:\IMAGELIB\LOC_HIST.PIC\jpeg\P06\P06413.jpg

..TITLE	WOLLONGONG - Harbour
..PHOTODATE	ca. 1850,1850-1860
..NOTES	Copy of one of the sketches in ""Map of the District of Illawarra""
..SUBJECT	WOLLONGONG HARBOUR,HARBOURS,SHIPS AND SHIPPING
..ACCESS	For reproduction apply to Wollongong City Library
..NEGNO	FM1/780
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S:\MAGELIB\LOC_HIST.PIC\jpeg\P02\P02770.jpg

..TITLE	WOLLONGONG - Harbour
..PHOTDATE	1860-1870
..NOTES	Construction of Belmore Basin at Wollongong Harbour. Belmore Basin was named after the Earl of Belmore who opened the completed works in October 1868
..SUBJECT	WOLLONGONG HARBOUR,BELMORE BASIN,BUILDING AND CONSTRUCTION,COAL TRANSPORT,RAILWAYS
..ACCESS	For reproduction apply to Wollongong City Library
..NEGNO	FM1/1107,FM2/13/5/35,FM2/48/2/23,FM2/52/6/8A,FM2/52/7/4A
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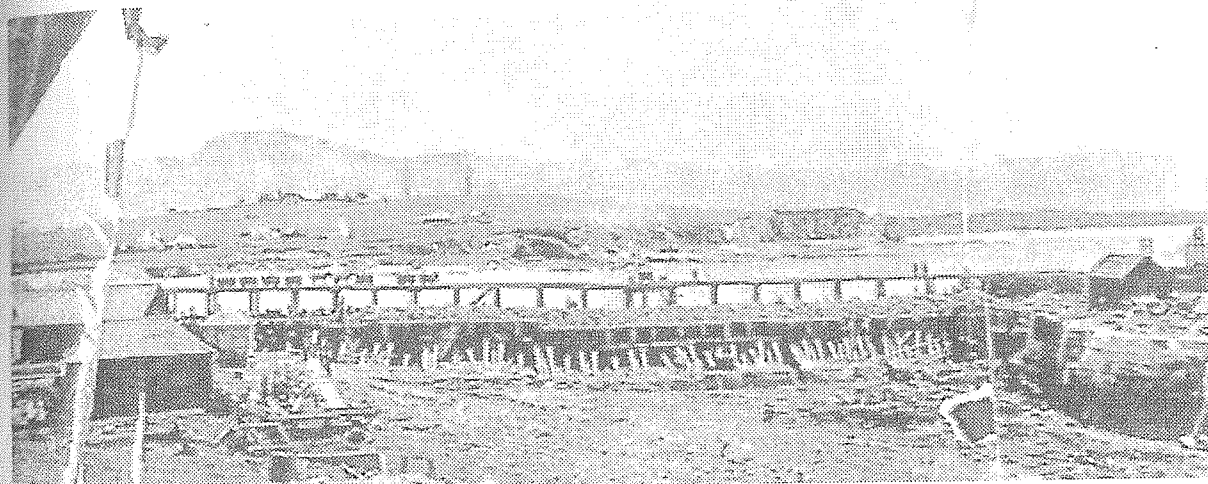
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S:\IMAGELIB\LOC_HIST.PIC\jpeg\P02\P02767.jpg

..TITLE WOLLONGONG - Harbour
..PHOTODATE 1880-1899,1880-1890,1890-1900
..NOTES Coal loading at Belmore Basin with dual gauge railway beneath staithes
..SUBJECT WOLLONGONG HARBOUR,COAL TRANSPORT,RAILWAYS
..ACCESS For reproduction apply to Wollongong City Library
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..TITLE WOLLONGONG - Harbour
..PHOTDATE 1860-1870
..NOTES Belmore Basin under construction. It was completed by 1868 and opened by Lord
Belmore,Bustle Farm among the trees on the hill
..SUBJECT WOLLONGONG HARBOUR,BELMORE BASIN,BUILDING AND CONSTRUCTION
BUSTLE FARM (House)
..ACCESS For reproduction apply to Wollongong City Library
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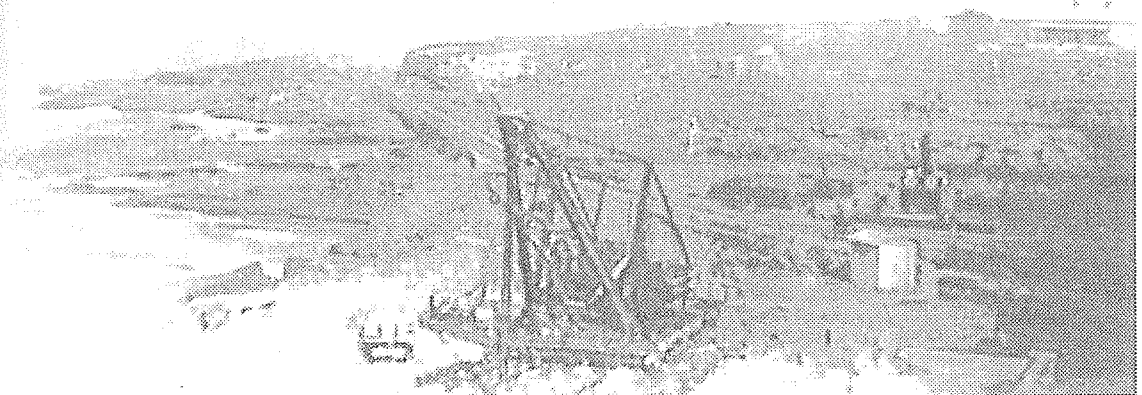
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..TITLE WOLLONGONG - Harbour
..PHOTDATE 1860-1870
..NOTES Belmore Basin under construction. It was completed by 1868 and opened by Lord Belmore
..SUBJECT WOLLONGONG HARBOUR, HARBOURS, BELMORE BASIN, BUILDING AND
CONSTRUCTION, SMITHS HILL
..ACCESS For reproduction apply to Wollongong City Library
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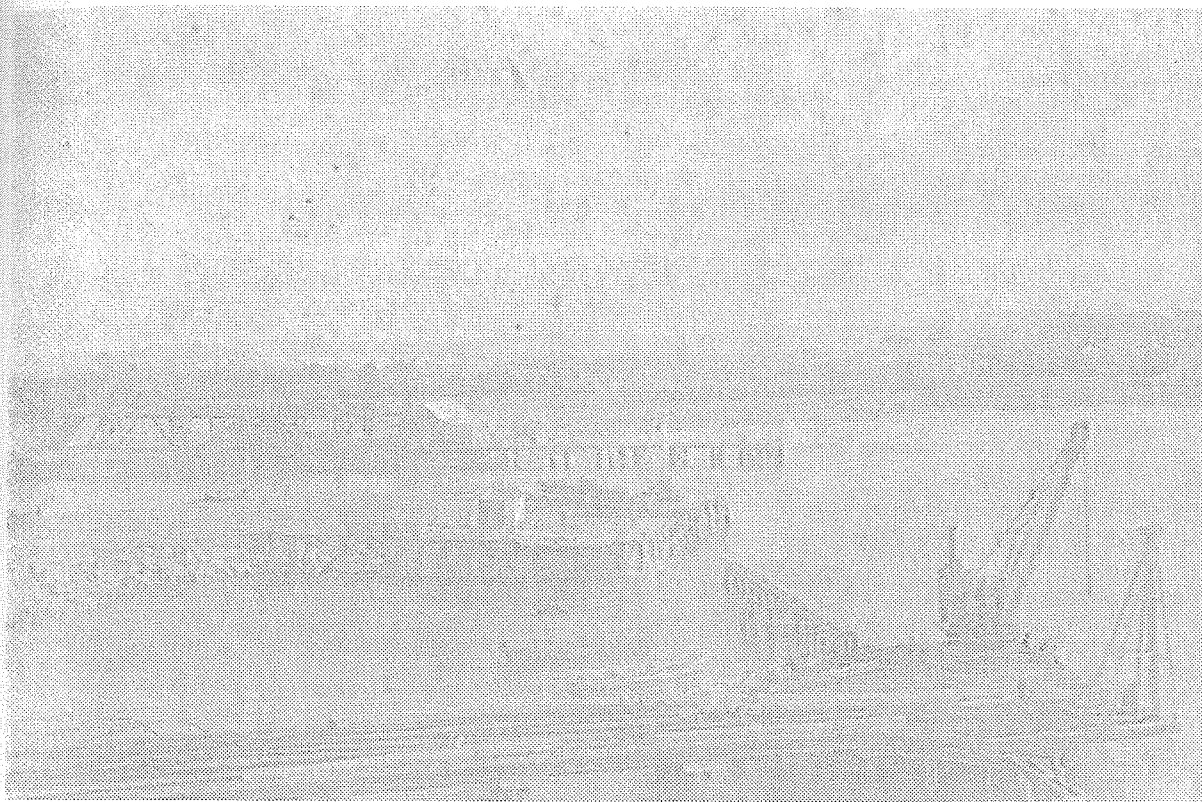
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.TITLE WOLLONGONG - Harbour
.NOTES Wollongong breakwater construction
.SUBJECT WOLLONGONG HARBOUR
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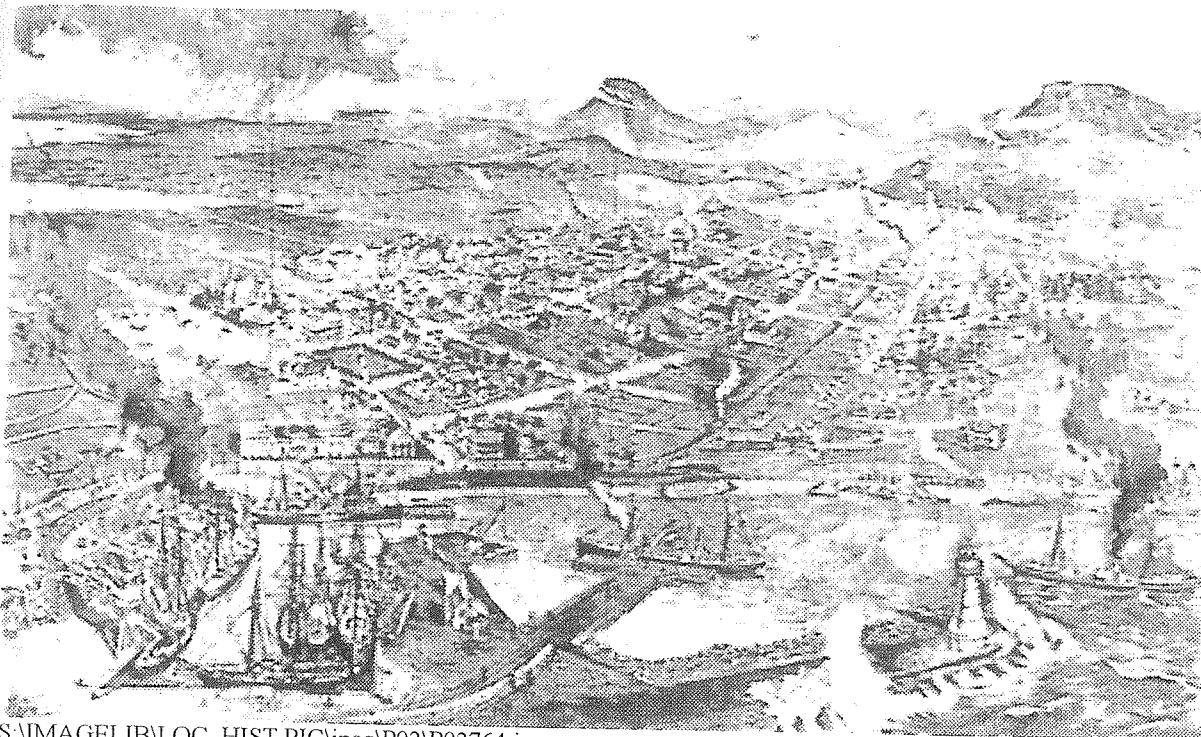
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..TITLE WOLLONGONG - Harbour
..PHOTODATE ca. 1907,1900-1910
..NOTES The T Jetty was built in 1880 and the gantry on right was erected in 1890
..SUBJECT WOLLONGONG HARBOUR,HARBOURS,COAL TRANSPORT,RAILWAYS,SHIPS
AND SHIPPING
..ACCESS For reproduction apply to Wollongong City Library
..SERIES Weber Collection
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..TITLE	WOLLONGONG - Harbour
..PHOTODATE	1887,1880-1890
..NOTES	Title on photograph: Wollongong N.S.W. 1887
..SUBJECT	WOLLONGONG HARBOUR,TOWNSCAPES,WOLLONGONG GAOL
..ACCESS	For reproduction apply to Wollongong City Library
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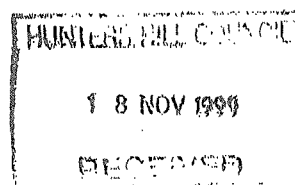
Mar. 26 2000 06:49PM P01



WOLLONGONG
City of Diversity

16 November 1999

Mr Don Cottee
Manager Public Works & Infrastructure
Hunters Hill Council
PO Box 21
HUNTERS HILL NSW 2110



Dear Mr Cottee

NOMINATION FOR HISTORIC ENGINEER MARKER
File N°: P3605 PR 14798-03
Our Ref: RNR:AS:JR

I refer to your letter 2 November 1999 regarding placement of plaque to recognise the engineering works associated with Belmore Basin.

As I indicated in our recent telephone conversation the majority of the engineering works at Belmore Basin are on Crown Land controlled by various state government departments and authorities. Council has no objection in principle to a plaque being placed on an existing plinth on the Council parkland adjacent to Belmore Basin.

Once the Institute has determined a preferred location could you please forward the details to enable formal endorsement of the proposal. The proposed plaquing ceremony arrangements should be forwarded to the Office of the Lord Mayor in the first instance to ensure the appropriate participation by Local Government representatives.

Yours faithfully

Andrew Stratford
Assistant Manager City Parks
Wollongong City Council
Direct Line (02) 4227 7230



BALISE GULLOTT
02422685
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STEW MAIDAY
PARKS COORDINATOR

WOLLONGONG HARBOUR.

Wollongong Harbour was first used by cedar-getters. In 1826 the Surveyor-General reported that it was one of the principal ports for the cedar trade in Illawarra. For many years there were no facilities for loading or unloading goods. Small vessels which traded between Sydney and Wollongong discharged cargo on the beach at the bottom of what is now Harbour Street. Boats were pulled in as close as possible, but they could only be loaded or unloaded when the sea was calm.

The question of improving the boat harbour was discussed in the early 'thirties. Major Mitchell said he believed a sum for the work would have to be taken at random, but as the job would be carried on by means of an ironed gang it would not be expensive.* It was reported in 1835 that a boat-harbour was to be formed for the protection of small craft that traded regularly at Wollongong.†

The breakwater was commenced on December 18, 1837, and the first stone was actually laid by Mr Cronin, who was in charge of the work, on May 23, 1839.‡

From a news item in 1838 it is learned that the basin undergoing construction would be about 100 feet by 35 feet, and that a section about fourteen feet deep had been cut. The large blocks of stone as they were quarried were deposited on the breakwater. It was stated that about nine months earlier Captain Plunkett had taken down a party to commence operations.¶ A further sum of £1700 was placed on the Estimates in 1841 by the Legislative Council for the completion of the basin.

Although a pilot was appointed to act at Wollongong, he was not provided with a boat. It was complained in 1841 that the ship *Thistle* wished to obtain wood and water at Wollongong and stood off the coast, but the pilot could give no assistance because he had no boat.

The second or outer dam necessary to complete the

* Mitchell Papers: Mitchell Library, Sydney.

† *The Colonist*, January 22, 1835.

‡ *Sydney Morning Herald*, December 16, 1841.

¶ *Sydney Monitor*, May 23, 1838.

excavation of the basin was said to be within a few days of being finished in April, 1842.§ A news item in 1844 said:—

The harbour at Wollongong may now be considered completed. The houses in the stockade have been sold by the Government, that occupied by Major Macpherson was sold to Dr. Cox for £9/15/-. It is intended to be transferred to an allotment at Kiama.¶

The cost of the work was £3465/15/9. When a gang was sent down to carry on the work of constructing the harbour, they were housed in a stockade which stood on the point of high land south of the inlet.

Mooring chains were laid across the harbour in 1839 to enable vessels not exceeding 300 tons to lie in safety. The sum of £20 was provided on the Estimates of 1849 for the purpose of repairing the mooring chains at Kiama and Wollongong. The pilot in charge of the basin was paid three shillings a day for his services.

A second loading slip was built in 1856. The steamer *Kiama* was the first vessel to use it in September, 1856.

The basin was repaired in 1858. A large weighing bridge was erected for the Kiama Steam Navigation Company in 1858 to weigh coal carts. It was brought into use on June 8, 1858,* when twenty drays were weighed.

A new mooring chain 135 feet long was laid down in 1858. Mr Moriarty reported on the Wollongong Basin in 1859. He suggested the extension of the pier for a distance of fifty-five feet, the deepening of the entrance to the basin, and that stone should be deposited on a reef near the harbour entrance. It was also proposed that an inner basin should be formed to open into the existing one. The Government approved of Moriarty's plan in 1859. In December, 1860, tenders were called for the work, but no satisfactory offer being received, the job was consequently subdivided and let to small contractors. The steamer *Kembla* brought down the necessary plant early in August, 1861, and the job was commenced during that month.

§ *Sydney Morning Herald*, April 9, 1842.

¶ *Ibid*, November 25, 1844.

* *Illawarra Mercury*, June 10, 1858.

The new work was completed in 1868 and opened on October 8. The Governor, the Earl of Belmore, and the Countess of Belmore travelled overland to open the new harbour. A large body of horsemen met the Vice-Regal party at the foot of Plunkett's Hill. The visitors and many of the public went on board the *Hunter* and the *Thetis*, which steamed a short distance outside the harbour and then returned. Lady Belmore broke a bottle of champagne on the bow of the *Thetis*, and named the dock Belmore Basin. His Excellency declared the port open for general commerce.

In 1864 an additional £5000 was voted for the lengthening of the harbour. A further sum of £10,000 was provided in 1866 for more enlargements. Three coal staiths were provided to handle the coal traffic. More provision for handling the coal trade was made in 1880, when two steam cranes were erected and set in motion on April 26 of that year. In 1885 the port had a coal staith capable of loading 150 tons per hour, two steam cranes which could load 100 tons an hour, another that could handle 120 tons, and a larger one capable of loading 200 tons. A jetty costing £6000 had been built earlier in that year or in 1884.[†]

It was reported in October, 1870, that considerable progress had been made in preparing a site for the foundation of a lighthouse at the breakwater. The site had been cleared down to low water level. The new lighthouse was completed in 1871, and it was reported in August that it would be lit in a few weeks. The tower was constructed by Joseph Mather, of Sydney.[‡]

WOLLONGONG BATHS.

In 1856 E. Johnson, proprietor of the Brighton Hotel, received a permissive occupancy for a part of the beach reaching from his own house to the rocks under Mr Farrell's house for the purpose of erecting baths. He had a bathing machine constructed similar to those used in England, this being launched on January 5, 1857, and

[†]*Town and Country Journal*, May 23, 1885.

[‡]*Ibid.*, August 26, 1871.

named the "Mermaid" by Miss Tooth. It is said to have been the first bathing machine constructed in the colony. It was ten feet long, five feet six inches wide, and fitted with seats. It was fairly patronized, but some objected to its exposed position and feared that sharks might attack the bathers. However, nothing untoward happened. Single baths cost one shilling each.

The local newspaper complained in 1858 that a "well dressed blackguard" watched ladies bathing under Flagstaff Point, and only retired reluctantly when requested by a servant to do so. The paper commented:—

Such conduct is unmanly and despicable and ought to be severely punished.

WOLLONGONG NEWSPAPERS.

The first newspaper published at Wollongong was the *Illawarra Mercury*, the earliest number of which appeared on October 8, 1855. Commenting on it, the *Sydney Morning Herald* said:—

... it certainly does credit to the parties engaged in the enterprise. It is a step in the right direction, and there is every reason to think that, if well conducted, it will succeed. Advance Wollongong!

The proprietor was Tom Garrett, who had as an apprentice William McCourt. On the retirement of Garrett, McCourt took over the business. Later it was sold to Hart & Campbell. McCourt removed to Moss Vale, where he founded a paper called *The Scrutineer*. McCourt became member for the electorate of Wollondilly, and held the seat for many years.

In 1860 the *Illawarra Express* was founded by Devlin & Sinclair. The paper was issued as a miners' advocate. The *Illawarra Banner* came into existence in 1863, it being owned and edited by William Bowe, a relative of William McCourt. It was printed at Fig Tree, but eventually was transferred to Wollongong, where it became the *Wollongong Argus*. Another *Wollongong Argus* was published about 1879, its name being changed later to *The South Coast Times*, which journal is still in existence.

'The Ridge'
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Meredith Hutton
Historical Archaeologist
Heritage Consultant

Conservation Study

for

Belmore Basin Conservation Area

Wollongong, NSW

Report prepared for Wollongong City Council

June, 1997

2. Chronological History of Belmore Basin Conservation Area

2.1 List of abbreviations for references

IM	Illawarra Mercury.
WA	Wollongong Argus.
WAdv	Wollongong Advertiser
SMH	Sydney Morning Herald.
SCT	South Coast Times.
TA	The Australian.
GG	Gardiner-Garden C.W., Port of Wollongong, Illawarra Historical Society, Wollongong 1975.
Shaw	Compiled by Shaw, Hilda J., 200 Facts about Historic Illawarra. Illawarra Historical Society, 1970.
J and J	Jones and Jones, Conservation Plan for T. S. Albatross, Corner Cliff Road and Harbour Street, Wollongong.(Old Court House).
Palmer	Compiled by Palmer, John., The Corfu Lifebuoy History of North Wollongong Surf Life Saving Club 1908-1996.
Fleming '69	Brighton Beach Wollongong, Illawarra Historical Society, 1969.
IHP	Illawarra Historical Publications.
IHS	Illawarra Historical Society 1989.
WCL	Wollongong City Library, Local History Room:-Maps and Photos; Cuttings Boxes - Defences, Beaches, Swimming Baths, Wollongong Harbour and Environs.
M Organ	Michael Organ, Local Historian & Archivist.
B Rogers	Brian Rogers, various publications.

2.2 Chronological History

Pre 1815 Prior to white settlement the Wollongong Harbour area was an important camp site for the local Aboriginal community, evidence of which is a large midden. (M Organ)

1815 Dr Charles Throsby, two cattlemen and two aboriginal guides, drove cattle from Throsby's farm in Liverpool. They built a stockman's hut near the fresh water lagoon (at the junction of Harbour and Smith Streets, just south of the Study area).

1829 Military detachment from Red Point (Port Kembla) was relocated to the Boat Harbour, which the little bay (Brighton Beach) north of Wollongong Head (Flagstaff Point). (Fleming)

1829 Brick bond store (Waterloo Stores / Brighton Stores) the first commercial building in the district later became Brighton Hotel. (M Organ)

1831 "The Beach", Brighton Beach was the seat of authority in the Government settlement. The Paulsgrove diarist of 1833 refers to visits to 'The Beach' with the inference that they were excursions to the centre of social life. (Fleming '69)

1831 The cutters Bee and Fanny of approximately 14-30 tons were trading to Wollongong discharging their cargoes, principally cedar, in the sheltered bay off Brighton Beach. (Fleming '69)

1833 Ship builder John Cunningham had 1 acre on the south side of Wollongong Harbour. It was used as a shipbuilder's yard with his cottage on the site. When the harbour works were in progress in the early 1840's a blast is said to have destroyed Cunningham's house. (Shaw)

1834 Plan for Town of Wollongong laid out by T.L. Mitchell with the boundaries of Crown, Keira Smith and Harbour Streets.

14/11/1834 Court House. Watch House contract awarded to George Brown (TA)

2/12/1834 Court House plans became available. (T A)

3/3/1834 Harbour or Bight is being neglected, ballast thrown in; cedar shipped out. (SMH) (At a later date this ballast formed the foundation for the breakwater.)

Dec. 1837 First harbour improvements commenced, first stone was laid by the superintendent of works Mr Cremin, a stonemason 23/5/1839. Harbour completed 1842 (Jervis) 300 convicts were employed on harbour works and housed on Flagstaff Point. (Gardiner - Garden)

1839 Mooring chains were laid in Wollongong Harbour during construction to allow vessels up to 300 tons to lie in safety. Years later a second lot of mooring chains was affixed to stanchions let into the rocks on the western side of the harbour, the remains of which are visible today (Shaw)

12/5/1839 At the harbour ...the jetty is about 50 yards long with about 50 yards to be added; there is an excellent store of local stone which will serve to make the breakwater. The harbour is being constructed according to Major Barney's plan but will need to be extended in about 5-7 years, cost estimate 10,000 pounds. Two bathing places on the bench of rock under the tongue of land - one for ladies with a hut erected by officers of the stockade prior to Capt. Plunkett, another over the cliff in a snug, shallow place for the men. The barracks and huts of the prisoners are on top of the tongue of land (pretty views of town and mountains). There are about 115 convicts, 30 troops of the 80th Regiment with Capt. Rait as commandant. The men are lodged in wooden "boxes" forming the side of a square, 24 in each, no windows only bars above doors to admit light and air. Mattresses only given to the sick. Men are locked in at night (and at time of this visit). The commanding officer lives 2 miles away at an earlier stockade. The tongue of land was the only part of Mr Smith's land accepted by (General) Sir Richard Bourke. (Illawarra Diary of Lady Jane Franklin 10-17 May 1839)

23/5/1839 Wollongong Steam Co. buys steamer Maitland, for regular service. (T A)

14/9/1839 Lt Col George Barney R.E. wrote a letter to Inspector General of fortifications in England, advocating permanent defences to protect Wollongong Harbour. (Greg Scott)

21/11/1840 Steam Co. raised fares Sydney-Wollongong, small settlers determined to travel by land. (T A)

1840 Wollongong was prosperous, two steamers, no jetty; stockade erected on narrow neck of land projecting south of Wollongong, hundreds of prisoners excavate basin solid rock for vessels; soldiers and sentries guarded. Governor Bourke called the place "Brighton of NSW". Capt Plunkett was police magistrate. Market Square was in centre of the town, stocks stood in the centre of the square. (Jas Gormley MLC, IM 4/2/1916) (NB - Westmacott Plan 1839 shows small passenger jetty in western end of Brighton Beach) - Franklin. (M Organ).

1850's During Crimean War, fear of Russian expansion into Northern Pacific, forced military authorities in Sydney to send two 64 pound muzzle loader cannons of "Waterloo vintage". These were placed facing northwards on Flagstaff Hill. A militia was recruited and trained to man these guns. (G. Scott)

1854 Black Swan Hotel licence, corner of Harbour and Cliff Road. Licensee William May Hovell.

8/10/1855 The first edition of the "Illawarra Mercury"; it became a daily paper in 1950. (Shaw)

1856 Advertisement by Edward Johnson for The Brighton Hotel, formerly the Black Swan, the only one with frontage to the sea and first nearest the wharf; good stabling, saddle horses and carriages for hire. (Fleming)

24/3/1856 Wollongong harbour: 2 steamers Kiama and Illawarra called whilst 4 sailing vessels were wind bound in the harbour with passengers for Kiama. Elizabeth Cohen, Mary Jane, Sarah and Chase bound for Sydney from Shoalhaven. Ann of Shoalhaven left Wednesday after lying for a few days wind bound. (IM)

26/5/1856 Public baths wanted. Exports from Wollongong: 222 kegs butter, poultry, horses, pigs, 37 bundles of cabbage tree, bacon, grain, flour. (IM)

20/10/1856 Public baths proposed (IM)

2/12/1856 Baths erected among rocks, Flagstaff Hill. Ladies bathe with a sentinel posted. Repair of small building to proceed, for use by ladies and children (IM 1/12/56)
Court House is in a broken down condition (IM)

1856 Wooden pier built at Wollongong harbour to accommodate rapidly increasing traffic. (BR)

1856 James Shoobert sold Mount Keira coal mine to Henry Osborne.

5/1/1857 "E. Johnson of Brighton Hotel will "launch" bathing machine so that persons can enjoy the luxury of sea bathing in comfort and at all states of the tide bathe with safety and privacy. The want of the latter is an inconvenience much experienced by the ladies hitherto, the other bathing places being so exposed as to render publicity unavoidable unless they can command the services of a vigilant guardian. ". Single baths 1 shilling, children half price. The machine the "Mermaid", was 10 feet long, 5 feet 6 inches wide and was fitted with seats and was situated on Brighton beach opposite the hotel, but it had a short life for some reason. (IM) (Shaw)

16/2/1857 Temple of Justice is tottering, tenders called to replace it. (IM) (This refers to the 1834 Court House built on the Government Reserve, facing Harbour Street.)

23/3/1857 New Court House- plans amended- 2000 pounds to be spent - "Elevation shows a pediment front supported by four stone columns with circular headed arches." The Court Room is to be 33 feet by 20 feet to be erected on the corner paddock opposite Brighton Hotel facing the harbour. (IM)

1/2/1858 The new sandstone Court House was taken over by magistrates. (IM) (The old building was subsequently demolished. (Gardiner-Garden)

8/2/1858 Full description of Court House. Opened. (IM)

13/7/1841 Breakwater approaching completion, steam boat for Sydney to run twice weekly. (T A)

1841 Boat steamer William IV: left wharf in Sydney at 8 pm arrived Wollongong 5 am, 9 hours, a fast passage (sometimes 15 hours.) steamer anchored off the beach and passengers landed in boats - ladies and children were carried ashore by crew. Prisoners were excavating the basin with coffer dam to hold back the sea. (IM 9/10/1888)

1841 Census NSW records the population of the Town of Wollongong at 831, only 64 people aged 45 and older, 168 born in colony 377 arrived free, 483 were Church of England, Illawarra Region population was 4,018.

3/1/1842 Wollongong bathing house and baths being completed by private subscription, original subscribers had one year gratuitously, new subscribers 5 shillings per quarter, families over 3 for 15 shillings. Tickets from Mr Davidson, Post Office, Wollongong. (SMH)

3/1/1842 Ladies Bath now complete. Convict labour used, situated immediately under Gipps Point with palisading erected around the brow to intercept all view from above. Three bathing rooms under one roof, weatherboard and shingled and furnished with the usual appliances. (SMH)

27/1/1842 Illawarra Steam Navigation Co. (ISNC) formed at schoolhouse 5,000 pounds in 5 pound shares. (S M H)

11/2/1842 ISNC offered steamer to assist shipping trade carried on by five small coasters. (S M H)

29/11/1843 Harbour - 300 pounds on supplementary estimates Completion of Basin. (S M H)

8/3/1844 Six vessels in Wollongong harbour taking cargo. (SMH)

1/4/1844 Coasting vessels to run twice weekly. (S M H)

11/3/1845 Governor visits district with party including Darke, Government Surveyor, to examine breakwater and to determine the best pass down the mountain at Bulli (S M H)

6/6/1845 Steamer wanted for butter etc. (S M H)

9/6/18456-8 hours to Sydney costs not covered. (S M H)

18/2/1846 Steamer resumes (S M H)

1848 Mount Keira colliery opened by Captain Shoubert (sic) the first in the southern Coalfield of NSW Coal was loaded into ox drawn carts at the mine and taken to a depot on Mount Keira Road then horse drawn carts were used to deliver coal to customers and through the streets to Wollongong Harbour. (Eardley)

10/9/1849 Mount Keira coal introduced to Wollongong 27/8/1849. A procession followed the carts to the wharf where the coal was loaded onto the steamer William IV. (SMH)

19/1/1851 Steamers Sophia Jane and Maitland had been running to Wollongong for years (S M H)

1853 Osborne - Wallsend Coal Mines Act applied for authorisation for construction of a tramway between the mine and Wollongong Harbour (Gov't Gazette Index)

- 18/2/1858 Otago schooner 100 tons loaded in basin and sailed out on high tide. William IV loaded with coal for Shoalhaven. Several ships loaded with coal but some had to await high tide prior sailing out.(IM)
- 11/3/1858 ...ladies enjoying facilities under the Flagstaff Point for inestimable luxury of sea bathing prowler caused fright.....(IM)
- 22/4/1858 To seek enlargement of harbour. (IM)
- 13/5/1858 Plan prepared by pilot(IM)
Osborne -Wallsend coal Company formed to raise 50,000 pounds to build a tramway. (Eardley)
- 31/5/1858 Mount Keira tramway - Osborne will petition parliament for permission to build from Osborne-Wallsend mines to cliff near pilot's house at Wollongong. to be brought along Smith Street across Harbour Street - about 3 miles. (IM)
- 28/6/1858 Wollongong Harbour. Mooring chains 180 fathoms long were fixed.(IM) (NB post on map - 1885)
- 18/6/1858 Enlargement of harbour sought by harbour committee. (IM)
- 22/7/1858 Deputation to Secretary for Lands seeking enlargement of Wollongong Harbour. (IM)
- 13/10/1859 Petition with draft Bill to Parliament in which Osborne- Wallsend Colliery owners sought to have the land compulsorily vested in them for the construction of a tramway, east of Flinders Street (Princes Highway)to the Harbour. Charles Throsby Smith's second wife and children owned this land and resisted selling it thus bisecting their area. They considered a 99 year lease then a 50 year lease then a 25 year lease which was deemed to be too short a period by the colliery partners to build a rail line. (IHSB 11/1979 E. Beale)
- 15/12/1859 Reports on the Tramway Draft Bill from Chief Commissioner of Railways and Engineer in Chief for Harbours, considered by committee. (IHSB 11/1979 E.B.)
- 1859 "The Empire" Wollongong has 5 churches, several schools, nearly 300 houses. (IM 12/2/1909)
- 1859 Wollongong Gaol - demolished, the stone used in the cottages in Harbour Street. (Fleming)
- 1859 A tender (McBeath and Bloomfield) was accepted for the erection of a gaol at Wollongong which was almost ready for tenanting by November; elegant appearance, six cells and if required extensions easily made. It was immediately east of the old Court House (Drill Hall) facing Brighton Beach. It stood until about 1920, some of the materials from the old gaol were used to build ten cottages on the site. (Shaw)
- 6/1/1860 Coal trade 1859 Mount Keira 14,244 tons at Sydney 15,668 pounds. (IM)
- 13/1/1860 Wollongong Harbour - public meeting resolves petition to government re: enlargement.(IM)
- 20/7/1860 Mount Keira tramway: Rixon and Humphreys tenders accepted - construction rapidly proceeding to wharf. (IM)

26/10/1860 Tramway to wharf is being built. (IM)

26/7/1861 Wollongong Harbour works begun. (IM)

17/8/1861 Meeting at Court House to petition Government to install telegraph to south coast. George Waring in chair. (IM)

19/11/1861 Gang on strike for 8 shillings per day, offered 7 shillings but being paid 6 shillings. (IM)

11/12/1861 From "Empire"- harbour improvements (IM)

6/5/1862 Telegraph line being cleared down Bulli mountain. (IM)

11/11/1862 Public baths wanted. (IM)

28/8/1863 Harbour works at standstill. (IM)

1863 Mount Pleasant Coal and Iron Mining Co. Ltd

24/1/1865 Harbour works in progress. New basin being built. (IM)

1865 Belmore Basin Free harbour. In 1865 tonnage dues - used by Hunter, Coomerang, Kiama, Kembla, Star of the Evening and Illawong. Sailors were Catherine Agnes, Christopher George, Catherine and Centurion. Sailors.....all took coal. Tonnage dues discontinued 1873 (IM 14.6.1890)

6/7/1866 Customs box built by Mr Bloomfield. (PWD papers - Archives, NSW)

30/11/1866 Wollongong Harbour basin: coffer dam ready - basin to be pumped out. (IM)

7/12/1866 Harbour works delayed (IM)

9/10/1868 Earl Belmore visits to open harbour - called Belmore Basin, on Monday 5th October 1868. Original basin excavated by prisoners' (convicts) labour in Gov. George Gipps' time. (IM) 6/10/1868 Lady Belmore broke a bottle of champagne on the bow of the government steamer Thetis and named the Basin. (Gardiner-Garden)

2/2/1869 Bathing place - Establishment of separate bathing places for both sexes frequently brought before public in Wollongong but only tacitly understood that gentlemen bathers at point north of harbour and ladies at an indentation under flagstaff or south of Flagstaff Point. "complaints ...lack of privacy...for ladies..." (IM)

1869 Breakwater built - Wollongong Harbour (breakwater on which lighthouse sited). B Rogers

31/5/1870 Former Brighton Hotel is being used as a school (IM)

3/6/1870 Lighthouse preparations being made for erection by Anderson (IM)

12/7/1870 Government steamer "Thetis" arrives at Wollongong Harbour with Moriarty, Engineer of Harbours, to select site of lighthouse. (IM)

2/8/1870 Breakwater lighthouse - foundations laid in concrete (IM)

25/11/1870 Bathers - People bathing in prohibited hours between 8 am - 7 pm will be prosecuted by police. (IM)

late 1871 The breakwater lighthouse in Wollongong Harbour was completed. The tower, which is 42 feet high was constructed of 1/2 inch boiler plate and the illuminating apparatus was originally lit by acetylene gas and showed a fixed light "visible from the deck of a steamer about 12 miles" (officially 10 nautical miles in clear weather). (Shaw)

1873 Tonnage dues discontinued. Pilotage, harbour and light rates then commenced and still in force (IM 1890)

1875 William Ahern and James Osbourne establish Coke Works near harbour.

14/6/1878 Mount Keira Railway line and sleepers being laid to take locomotives - iron rails to be used - wagons 6 tons each. (IM)

1878-1883 Lt. Colonel Peter Scratchley became Commissioner of Defences for all Australian Colonies except Western Australia. He advocated that fixed fortifications with adequate protection for the defenders be built and fitted with modern pieces of ordinance to protect the Australian coastline. Cost cutting interfered with implementation of his plans. (G. Scott).

19/7/1878 Steam tug sought Wollongong (IM)

10/10/1878 Steam tug wanted to tow colliers out of harbour. (W A)

23/1/1879 Mount Keira railway: locomotives arrive from Sydney - expect new era at Wollongong. (W A)

6/5/1879 Keira and Kembla locomotives for Mount Keira fitted up. (IM)

27/6/1879 Wharf: waiting room wanted because of rain, mud. (IM)

7/1879 SS Havilah landed three (or four) 68 pound smooth bore, muzzle loader cannons to reinforce defences on Flagstaff Hill, a move prompted by renewed Russian scares. One of the old 64 pound guns was converted to a signal gun which was fired every day at 1 o'clock. The time was telegraphed from Sydney and a signal at the old post office was lowered so that the gun could be fired. Regular gunnery practice by local volunteers, led by Major McCabe, made them the crack company of the State. (G. Scott)

3/8/1879 Harbour works: permanent railway beside Belmore Basin and on towards Pulpit Rock. (IM)

31/10/1879 Butter, test shipment sent by John Biggar to England on Chimborazo. Placed in ice house on vessel. (IM)

27/11/1879 Two locomotives installed on Mount Keira railway to haul coal trucks to harbour - Captain Osborne's property. (W A)

1880's Norfolk Island pines planted on Brighton Lawn

16/1/1880 New Tee Jetty to be built between old pier head and lighthouse by J.K. Taylor. (IM)

Tee-Jetty

1880 Increasing traffic of the Port required the addition of a Tee Jetty which was equipped with a crane operated by a steam winch and vertical boiler. The crane column was mounted on a substantial concrete base which still remains. The timber jetty has been demolished. A masonry sea wall was constructed to protect the railway to the jetty and a stone in the wall is inscribed "Erected 1881". The wall is 12 feet high and runs from near the commencement of the breakwater to the cliff. A rubble embankment once connected it to Pulpit Rock. Another 12 feet wall was built between Pulpit Rock and the base of the cliff. Both the 12 ft walls still stand in good condition. (Gardiner-Garden)

18/3/1880 Water supply from behind Mount Keira being surveyed by M.H. Moriarty. Mount Keira and Mount Pleasant coal lines have different gauges so a triple line system installed at harbour. (W A)

27/4/1880 Steam cranes begin to operate at Belmore Basin. (IM)

10/9/1880 Wollongong Harbour - need to accommodate large vessels - militates against coal trade. (IM)

16/9/1880 Steam tug for Wollongong Harbour - tenders called for. (W A)

7/12/1880 The former Brighton Hotel sold at auction to JP Galvin of 'The Cricketers Arms' and reopened until 1919.

12/12/1880 (WA) Residents and Wollongong Borough Council bitterly oppose a plan by the State Government to build a Customs Facility on [Brighton] lawn. (M Organ)

7/1/1881 Subscriptions being collected for improvement of bathing place known as "Clarke's". (IM)

7/1/1881 Rock was removed from ladies baths, to make it 4 feet - 7 feet at high tide. (IM)

7/4/1881 Railway station sites being considered some favour Garden Hill - others "The Green". (W A)

12/12/1881 The Argus and the Borough Council bitterly opposed the NSW Government proposal to put a small building on the Esplanade (Brighton Lawn) for use as a Customs House. The building was built on the site of the current kiosk but relocated across Cliff Road to the Old Court House yard in 1887 when the court House opened.

10/3/1882 Milk for Sydney: shipped 150 gallons by steamer from Wollongong to Fresh Food and Ice Co. Delivered in Sydney but some was a little sour. (IM)

29/3/1882 Beach sand erosion by wind to be prevented, 1000 pounds on estimates, for Wollongong to Tom Thumb foreshore. (W A)

1/6/1882 Illawarra Steam Navigation Co. (ISNC) served Wollongong and southern ports to Eden - use Wollongong coal. (W A)

1/6, 15/6/1882 Public meeting in council chamber to discuss site for a railway station. Resolved to seek railway station at 'The Green' and bring as near to the harbour as possible. (W A)

2/6, 16/6, 30/6/1882 Public meetings ... resolves to ask for railway on west side of town and to connect with harbour. Committee met. (IM)

- 22/8/1882 New crane on new jetty at lighthouse tested. (IM)
- 1/9/1882 Brush fence prevent sand drift erected Flagstaff Hill to opposite Barella Street. (IM)
- 28/6/1883 Flagstaff Hill - fences to prevent sand encroachment erected. (W A)
- 15/8/1883 Harbour - tug tender accepted. (W A)
- 1/9/1883 Tug despatch a steamer - 30 horsepower to be stationed in Wollongong. (W A)
- 16/10/1883 The cat-o-nine-tails (or triangle) arrived from Sydney by steamer for flogging operations in Wollongong gaol whenever it may be ordered by the bench. The warder will be the official to apply the lash. (K I)
- 23/4/1884 Kurrara new steam collier for Mount Keira trade arrived from Cardiff. Kanahooka, sister ship, expected soon. (W A)
- 10/5/1884 Kanahooka built in Rotterdam for Osborne-Wallsend colliery, arrived in Port Jackson. (W A)
- 17/5/1884 M.H. Moriarty assistant engineer for Harbours and Rivers, seeks to rebuild the old coke works which has been idle many years. (W A)
- 30/8/1884 Civic reception on return home of William Beach at Belmore Basin - followed by a procession through Wollongong and luncheon at Temperance hall. (IM)
- 10/1/1885 Harbour enlargement mooted. (W A)
- 22/1/1885 Correspondent Victor Mayne writes to urge permission for bathing at all hours "men with the least sense of virtue and honour will not venture on the sacred precincts of the females' bathing ground"
- Men bathe at "Clarke's" and women at Flagstaff Point. (IM)
- 3/6/1885 Meeting of residents petition Minister of Works to examine harbour with a view to enlargement. Only takes vessels to 16 ft draught. Coal owners had to pay ton freight on coal sent to Sydney for overseas because overseas ships could not call at Wollongong to load. (IM)
- 8/2/1885 Two mines produce 1000 tons per day at Wollongong. "Untold mineral wealth was still undeveloped in our mountains, but with the advent of the railway and adequate harbour accommodation industries of every description would spring into birth" said William Hobson. (IM)
- 1885 New and current Court House opened, its location illustrates the shift towards the Illawarra Railway and the decreased emphasis on the Wollongong Harbour as a focus for the town. The sandstone Court House was converted to a Customs House. (Jones and Jones)
- April 1885 William Beach world champion oarsman welcomed home to Wollongong and Dapto. Arrived by steamer, Mayoral reception. (IM)
- 16/5/1885 Meeting urge government to defend Wollongong as it had done Newcastle and Sydney. Wanted defence from Coal Cliff to Port Kembla. Wollongong third most important gateway to colony

from outer world. Guns on Flagstaff Point useless as unprotected against enemy attack. Threatened war England - Russia put off awhile. (IM)

15/6/1886 First carriages arrive by steamer and hauled up Mount Keira line to railway by Mount Keira locomotive. (IM)

1887 Royal commissions in the 70's and 80's proposed fixed fortifications with adequate protection for the defenders to be built. The Public Works Dept. (Military Works Branch) called for tenders to start work on emplacements on Cliff Road. To save costs two older rifled muzzle-loaders RML were installed and underground rooms built behind the parapet. (G. Scott)

mid 1880's Col P.H. Scratchley and Cdr Howard RN reported that enemy cruisers could steam off the coast out of range of obsolete weapons and demand bunker coal from ports such as Newcastle and Wollongong in return for not bombarding them. New defence plans had to be made. (28/6/1984 Yesteryear IM)

3/3/1887 Public meeting urges government to construct a loop line railway to Belmore Basin harbour.

15/3/1887 Deputation re: (IM)

30/6/1887 Customs House moves into (old Court House) near Harbour Street and new Court House opens in Market Street. (IM)

25/8/1887 Williams of Harbours and Rivers Department inspects coastline seeking a suitable place for Wollongong bathing. (IM)

30/8/1887 Bathing places - old bathing place under Flagstaff Point most suitable for ladies whilst old "crude" bathing places "Clarke's Hole" and "Gibson's Hole" need enlarging to make suitable for men. North of Mount Pleasant railway cutting near Stuart Park a site could be made. (IM)

17/11/1887 Ald. Wiley seeks secure local harbour trust for Wollongong. (IM)

13/12/1887 Proposed harbour improvement: channel 1.5 miles long from Wollongong harbour along south foreshore to north-east corner Tom Thumb lagoon which will be developed into harbour with railway extension to wharves from Wollongong. Map and plans as supplement to paper. (IM)

16/2/1888 Proposed loop line to wharf surveyed. (IM)

13/3/1888 Committee preparing Bill Harbour Trust to submit to parliament. (IM)

26/4/1888 Interlocking points on colliery lines prevent coal trains running into government rail trains at level crossings. (IM)

9/10/1888 Wollongong - "Brighton of Australia". (IM)

20/11/1888 Public meeting resolves public baths necessary at Wollongong and to assist council obtain money for work. (IM)

11/12/1888 Young men bathing on rocks in afternoon - promenade on hilltop overlooks sea - ladies like to walk and rest there but impossible. Bathing prohibited 10 am - 5 pm but crowds of men bathe from 3 pm onwards. (IM)

1888 Sydney Bomaderry Railway opened. (Fleming)

19/2/1889 Ladies bathing place to be rebuilt then gents. (IM)

23/2/1889, 6/4/1889 Loop line - commissioners hope to purchase Mount Keira railway - bill in Parliament. (IM)

21/3/1889 Coke works: land north of Belmore Basin some years ago James Osborne and W. Ahern erected six coke ovens last year W. Ashley acquired and opened using waste from local collieries.

23/3/1889 Henry Parkes pressed by deputation to constitute Harbour Trust Committee. (IM)

13/4/1889 Improvements to Ladies bathing place Flagstaff Point, ready for use. A wire rope stretched across beyond which it is deeper than should be ventured by persons unable to swim. (IM)

8/6/1889 Sand drift works - inspection by curator Botanic Gardens gives advice re: prevention. (IM)

29/6/1889 Harbour Trust Bill in Parliament. (W A) The Bill was drafted by W. Wiley and J. Biggar, based on those in England, Victoria and New Zealand. (Illustrated Sydney News ISN 30/8/1890)

16/7,20/7,27/7/1889 Harbour Trust Bill - Trust will get whole of racecourse and showground. Illawarra Harbour and Land Comp Bill (IM)

28/9/1889 Harbour Trust Bill passed Parliament. (IM) Hence - Harbour Trust Act of NSW, the first of the kind passed in NSW

2/10/1889 Harbour Trust Bill became law October 1. Canal proposed from Wollongong harbour to Tom Thumb Lagoon. The harbour works were to have a progressive effect on the coal industry in Illawarra. (W A)

29/10/1889 Harbour Trust - first commissioners named. (IM) Twelve commissioners in total, three of which are selected by the Governor and the remainder by interests affected by the proposed docks. (ISN 30/8/1890)

2/11/1889 Loop line being built (linked government railway with Mount Keira line). (W A)

23/11/1889 Deputation urges construction of harbour on Lake Illawarra. (W A)

30/11/1889 Harbour Trust - first meeting. (IM)

3/1/1890 Wollongong Harbour Trust Building was the Market St. Post Office, now the Illawarra Historical Society Museum. (Gardiner-Garden)

11/1889 James Russell and Co., Sydney, secured the contract for the construction of an emplacement at Flagstaff Hill. Cost was 3,235 pounds. (G. Scott)

7/12,10/12/1889 Gundlach and Reinz of Wollongong patent new electrical invention - electric light. (IM)

(Town or District)	BELMORE BASIN	Harbour
Post Code 2500 City of Local Govt Area Wollongong	SEA WALLS AND HEADLAND	
Author of Proposal J. BIRMINGHAM A.E. BRASSIL	BEMORE BASIN LIGHT (CLASSIFIED INDIVIDUALLY)	(see attached map)
Date of Proposal JULY 1979	(Name or Identification of Listing)	(Address or Location)
Suggested Listing Category CLASSIFIED	Bibliography	Owner and Address
Committee (Trust Use) IAC	Port of Wollongong, C.W. Gardiner Garden (Illawarra & District Hist. Society)	
Council APPROVED/CL (Trust Use) 20/8/79		

Description Briefly cover the points on the following check list where they are relevant and within your knowledge.

Style The original Wollongong Harbour basin, semi-circular, with a stone-faced pier forming its northern side, was excavated from solid stone between 1837 and 1868. Cpt. Y. Barney, using convict labour, for a cost of £3,500. A second pier of timber, projecting from the south side of the basin was added in 1856, of which the stone steps in the eastern end of the structure are believed to be the remains.

Construction Use The plans, drawn up by Mr. Moriarty, for Belmore Basin were approved in 1855. It was built 1861-68. Cut out of the rock, it was increased during construction by 47 metres more than originally planned to 140 metres, and averaged 3-4 m in depth. It included three high-level staiths for loading coal from the Mt Keira and Mount Pleasant collieries, cost £44,892 and was officially opened in October, 1868. Now, it is used as a terminal for the local fishing fleet, operating from the Fisherman's Co-op Building on the south side of the basin. The Wollongong Harbour Trust League drew up plans in 1889 for two breakwaters, substantial land reclamation around the harbour but these were never realised. Only 80 metres of breakwater north of Belmore Basin Light, and some evidence of the start made of the northern breakwater near to Pulpit Rock remains.

Architect/s

Builder/s

Date of Construction

Present Condition

History

Owners

Boundaries of proposed listing

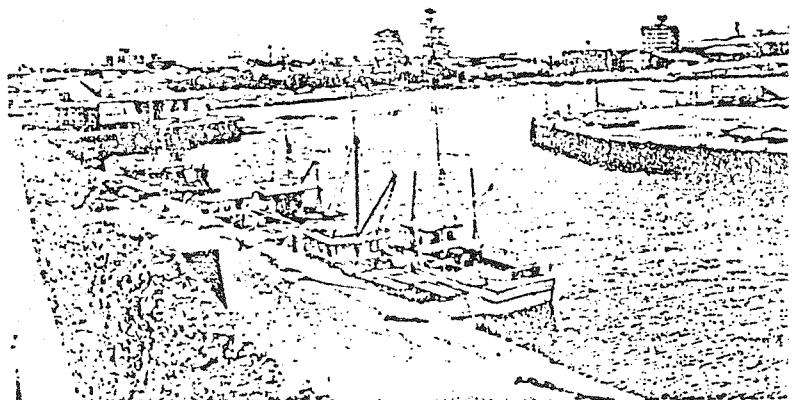
continued overleaf:

Reasons for listing

Wollongong Harbour, with its coursed random stone retaining walls and massive masonry sea walls, is the best remaining representative of the coastal port of the latter half of the last century. Its haphazard development, first serving the coal industries, then general cargo industries, and now the local fishing industry and general pleasure boating needs of Wollongong, has resulted in a variety of structures, each at one time important in the development of Wollongong, that now combine to create an attractive and interesting port area that still has important commercial and recreational uses.

Sketch plan and photos
Attach additional photos
if any.

1979



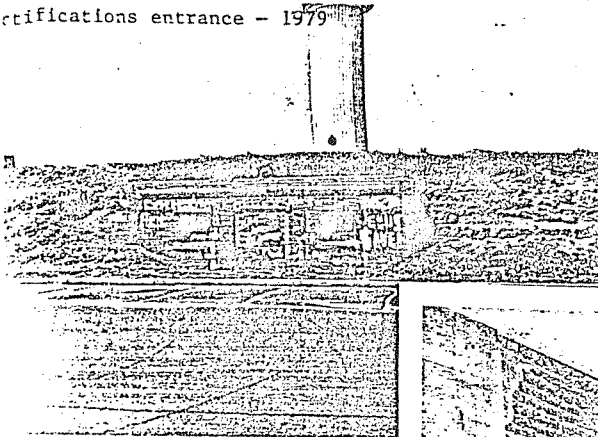
WOLLONGONG HARBOUR - BELMORE BASIN continued:

A 3.7 metre high masonry sea wall, inscribed "ERECTED 1881" runs from near the beginning of the breakwater to the base of the cliff and of two other walls, one 3.7 metres high, one 1.2 metres high, both made of rubble, connecting the sea wall to Pulpit Rock and Pulpit Rock to the base of the cliff, only the 3.7 metre one remains.

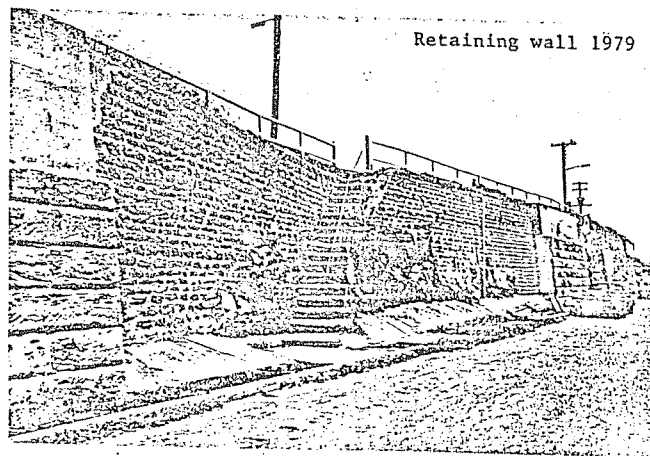
The "Tea Jetty" was built in 1880 for a crane operated by a steam winch with a vertical boiler. It was of heavy timber, and the crane column was built on a substantial concrete base. Demolished in the 1920's, the crane column base remains in the water 40 metres from the shore.

The Harbour Street Drill Hall nearby, (not included in this listing) RECORDED by the Trust, was the Customs Office for Wollongong Harbour from 1885 till 1901, when Commonwealth customs activities were transferred to Port Kembla. The Belmore Basin Light, CLASSIFIED by the Trust, was installed in 1871-72 and is still in use.

ifications entrance - 1979



Retaining wall 1979





THE NATIONAL TRUST OF AUSTRALIA
(New South Wales)

copy:-

L. Mayor.
Ald.
Mowbray

- 6 SEP 1979		
TC	CC	TC'S SEC.
DTC	CPA	JOHN MAYOR
FOH	CS	COUNCIL
FOO	CA	WORKS
FOG	PAIO	H & B
CS	LIBR	FINANCE
CHS	TP	

STRALIA (New South Wales)

17 5374

YOUR REF: R.1072/29



With compliments

LOCAL CUTTINGS FILE

Dear Sir,

ATTENTION: MR. BRITTON

WOLLONGONG HARBOUR: Belmore Basin, Sea Walls and Headland,
and Belmore Basin Light (CLASSIFIED INDIVIDUALLY)

I am pleased to inform you that the abovementioned property has been included in the Trust's REGISTER. The REGISTER lists those buildings, settlements and landscapes which in the Trust's opinion are important parts of Australia's national heritage and which therefore require particular care. An explanation of the Trust's listing system is enclosed.

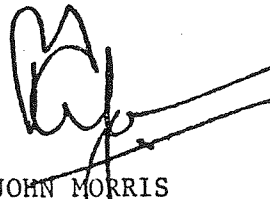
The abovementioned building has been CLASSIFIED in the REGISTER. The Trust believes that CLASSIFIED buildings are essential to the heritage of Australia and by listing them hopes to ensure their preservation.

It must be emphasised that the inclusion of a building in the REGISTER does not mean that the Trust is wanting to purchase that building nor does it mean that the owners will be expected to open that building for public inspection.

Listing by the Trust does not have legal force. It is, however, recognised as an authoritative statement of the historical and/or architectural importance of a building, and by listing such buildings in a REGISTER the Trust hopes to advise the public of the value of its national heritage.

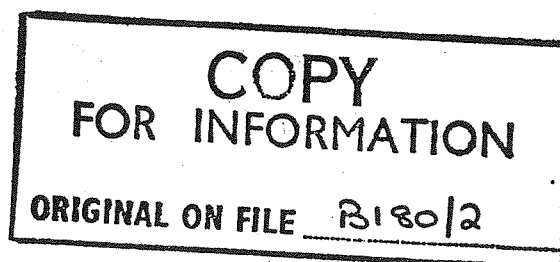
Enclosed is a report prepared in support of the Trust's listing and I would be pleased if you would advise me of any errors or significant omissions.

Yours sincerely,

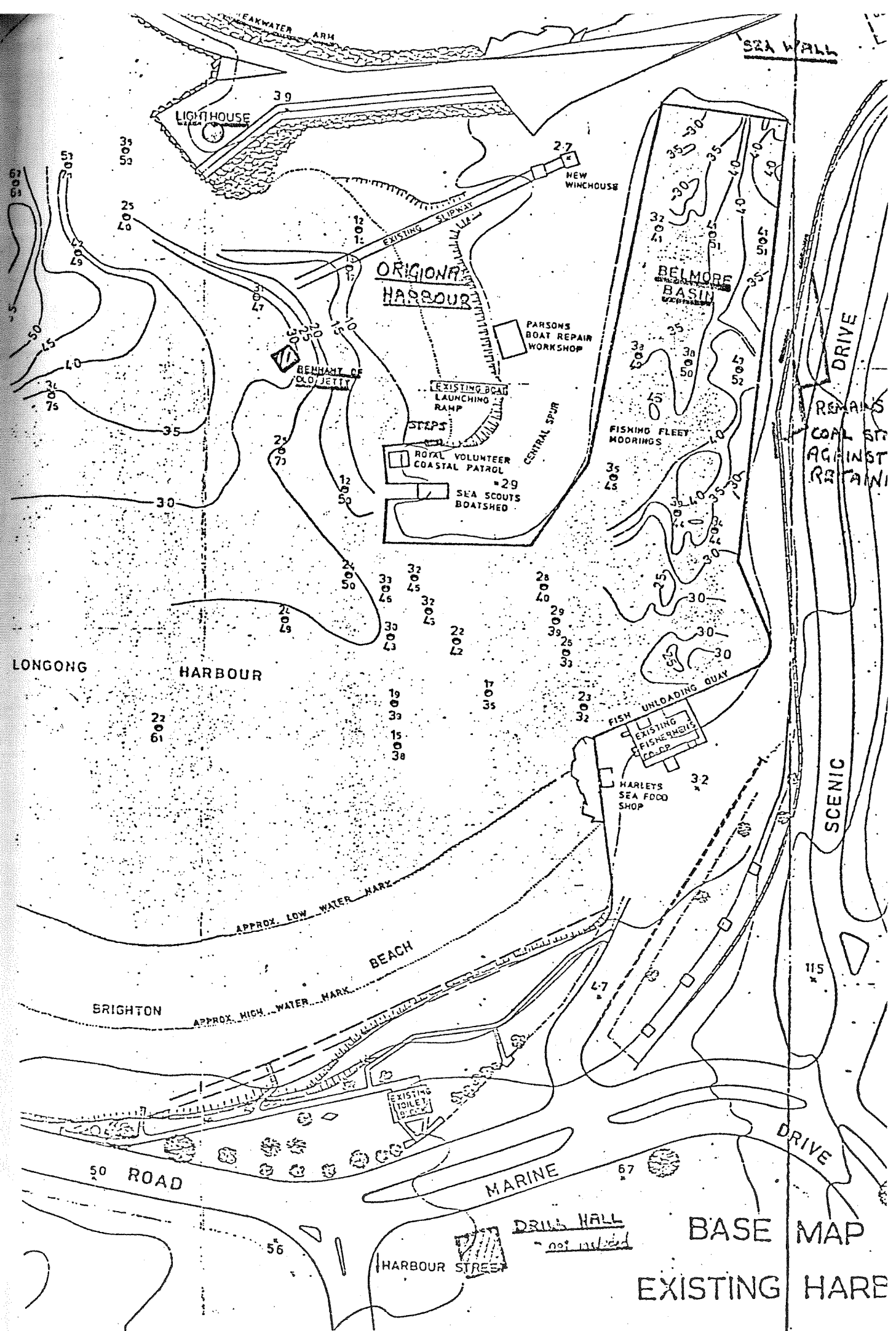

JOHN MORRIS
Director







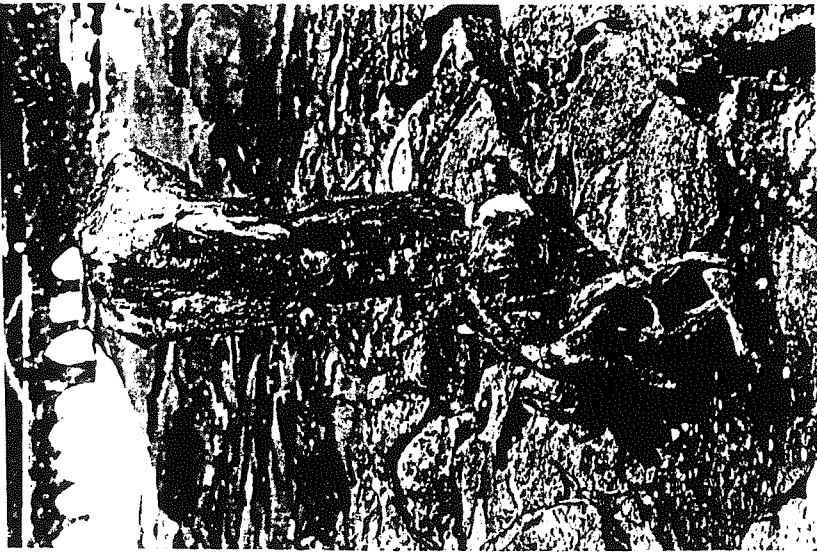
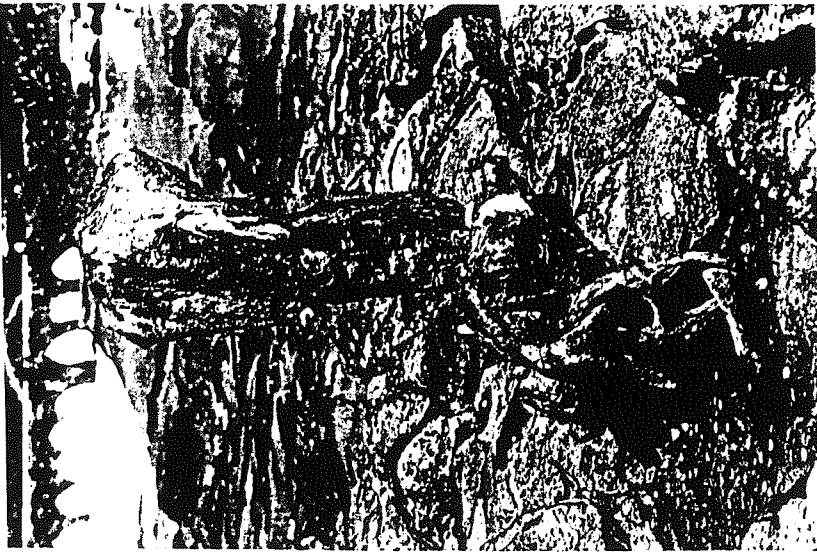
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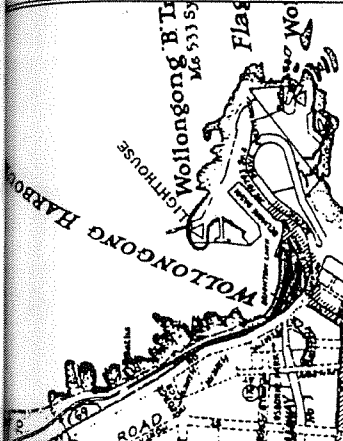
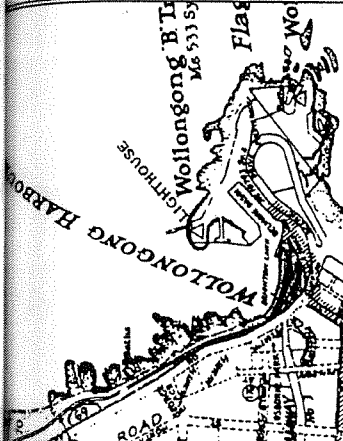
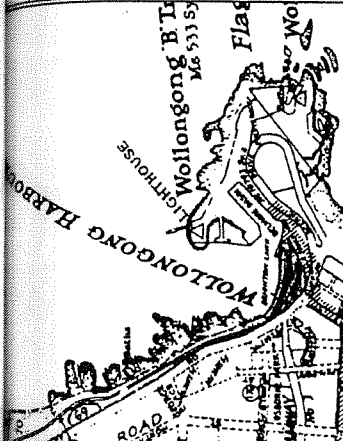
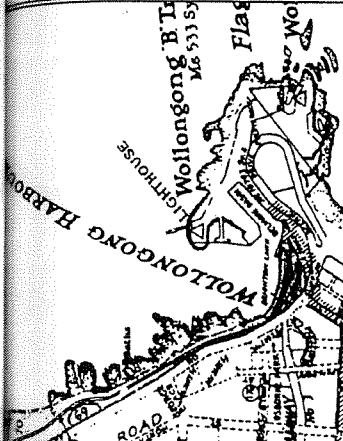
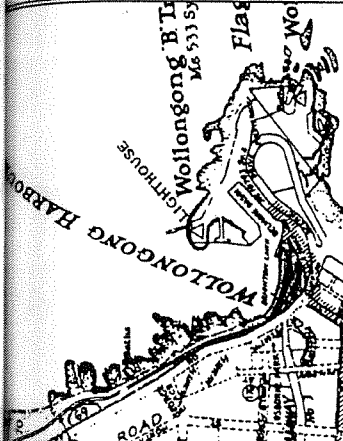
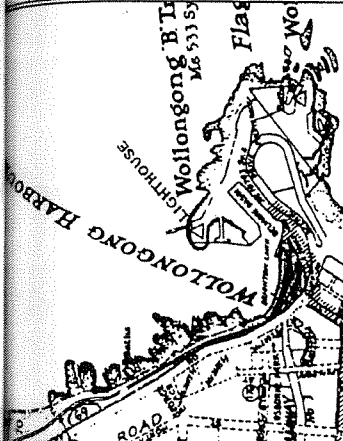
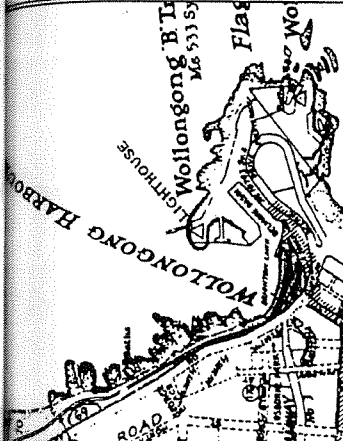
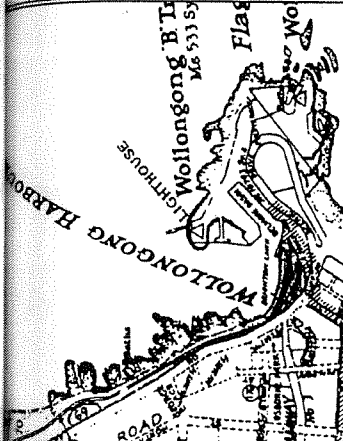
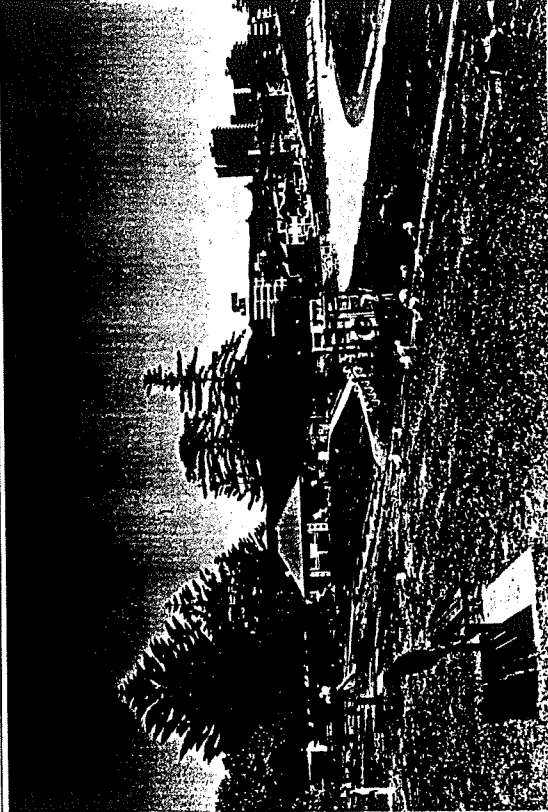
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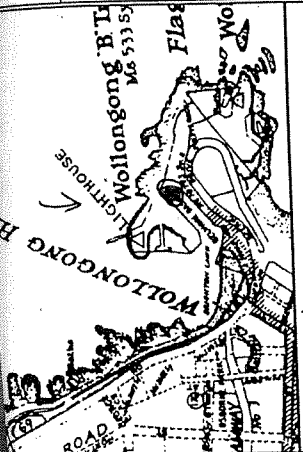



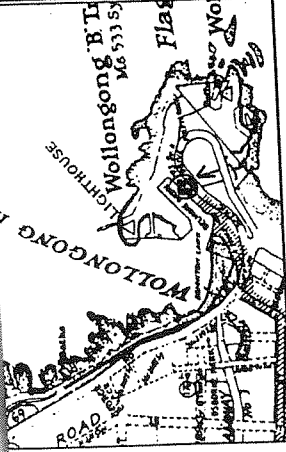
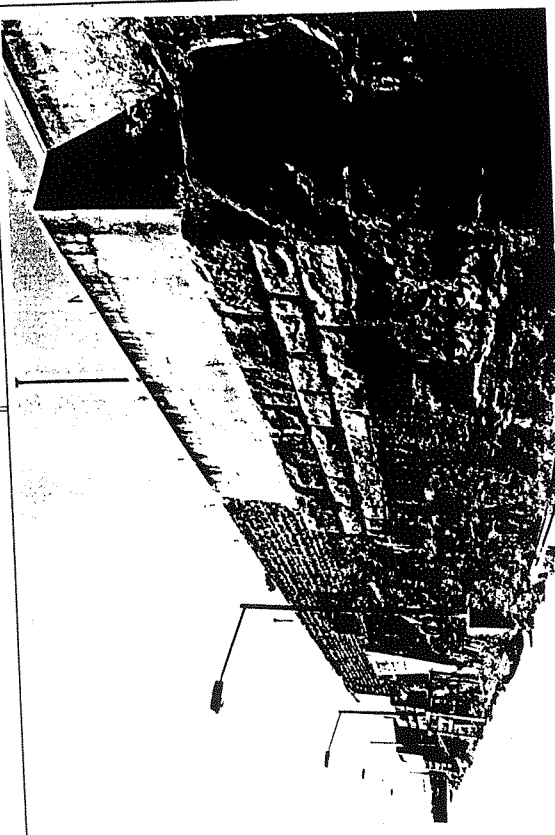
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		Former Name / Location Outer Harbour, rock platform, western area and adjacent to Quay area.
		Location Wollongong B.T. 533 S. Flag
		Identified - AHC, HC, NT, REP, LEP, DCP, Other
		Designer / Builder
		Date of Construction 1830's,
		Current use / Condition Corroded, exposed at low tide,
		Description Significant as early attempt to provide mooring facilities; vital to the docks development
		Sources Day of Lady Jane Franklin, Feb. 1997 Meredith Hutton ©

		Former Name / Location Boat Harbour - early 1800's.
		Location Wollongong - outer harbour / Cliff Road.
		Identified - AHC, HC, NT, REP, LEP, DCP, Other
		Designer / Builder E.O. Morarty,
		Date of Construction E.O. Morarty 1860's - landscaped with 15 pine trees c.1880
		Current use / condition Open space, public recreation,
		Significance - Early site for public recreation / open space. - first landing place for settlers 1830's - part of the settlement of Wollongong 1830's. - Visual link between Old Port Harbours and the Harbour.
		Description - landscaped, 1460's - current work of 1996
		Sources Feb. 1997 Meredith Hutton ©

	<p>Location Belmore Basin</p> <p>Identified - AHC, HC, NT, REP, LEP, DCP, Other B. 10-C.</p> <p>Designer / Builder E.O. Moriarty, contract works,</p>
<p>Date of Construction 1861-68</p>	<p>Current use / condition Harbour walls and steps to water, good condition.</p>
<p>Significance Mid 19th harbour, vital to Wollongong development, Early major construction project, managed by the government.</p>	<p>Description Masonry walls and steps above walls blasted & cut from natural rock.</p>
	
<p>Sources Feb. 1997 Meredith Hutton</p>	

	<p>Location Belmore Basin retaining wall to Flagstaff Hill - Endeavour Cove / Flagstaff Hill -</p> <p>Identified - AHC, HC, NT, REP, LEP, DCP, Other B. 8-C</p> <p>Designer / Builder wall & stairs, E.O. Moriarty</p>
<p>Date of Construction 1866-1868 1870's -</p>	<p>Current use / condition retain Flagstaff Hill, good condition.</p>
<p>Significance Part of harbour design, and second phase of construction, - Represents major local export occupancy of Harbour</p>	<p>Description Stone block - coursed wall, random rubble, - coursed wall, concrete foundation for stairs</p>
	
<p>Sources map, plan, photograph, wall - local studies Feb. 1997 Meredith Hutton</p>	

The railway line that entered the Harbour at the basin level extended beyond the Basin, toward the northeast, to a shunting area where coal wagons could be re-directed along one of the three tracks which ran along the Central Spur and terminated at a turnstile. Two cranes were located between the Basin edge and railway tracks.

Alternatively, the wagons could be pulled onto the timber Tee-Jetty, built in 1880. A steam crane with a vertical boiler was mounted on a concrete base. The crane support column and concrete base survive and are located south of the Breakwater Lighthouse, about 40 metres from the shore.

The 1881 Sea Wall was built to prevent high waves from running into the Basin. The wall is constructed from large stone blocks with mortar joints. It tapers toward the top and has a rounded capping of concrete. The wall reaches up to 12 feet in height on the seaward side at its eastern end. It ends abruptly, unfinished. The 1885 plan³¹ shows a 4 feet high stone rubble embankment extending from this point, indirectly to Pulpit Rock.

The wall is considerably more weathered on the seaward side than on the sheltered harbour side. A channel cut into the rock platform on the seaward side, may relate to the coke ovens and salt works. There is a rounded alcove near the eastern end, on the Basin side. The inscription 'Erected 1881' date, was just visible on a stone on the wall in 1975³².

6.1.4 Discussion of Significance - Precinct

Historic; Associated with people and events, influential in the evolution of Wollongong and the Illawarra. Was the first Port / Jetty in the district and was associated with the introduction and evolution of coastal shipping.

Aesthetic; Demonstrates convict construction work and is associated with the colonisation of NSW. Demonstrates the importance of shipping in 19th century coastal NSW.

Social; The opening of Belmore Basin is recognised as a major event in the history of the district.

Scientific; Associated with the district's first lighthouse which is one of only two cast iron lighthouses in NSW.

Rarity; Belmore Basin is a rare survivor of major convict harbour construction and it is a rare survivor of the numerous 19th century coastal shipping facilities in the Illawarra.

Representativeness; The Harbour represents the establishment of Wollongong and the evolution of the town's early commercial development.

Summary of Significance; Wollongong Harbour is where Wollongong was established. The harbour was the gateway for people and commodities entering the town and in due course, for the export of the district's produce to the Sydney market and is a fine example of a 19th century harbour. It is significant as it was built by convict labourers and extended by contract workers as the project was considered too large for the government of the day to undertake alone. The harbour demonstrates the process of rapid industrial development, to being the third largest port in the state, but unable to remain competitive due

³¹ Howard Commander., RN., Wollongong Harbour 1885 February - April., Lands Department

³² Gardiner - Garden., Port of Wollongong., IHS., 1975., p 40

CALL NO MSS 402

TITLE Membership card of Wollongong **Harbour Trust** League

CONTENTS 1 card, mounted

FURTHER ACTION Image Library potential

DESCRIPTORS Harbours
MacCabe, Henry Osborne
Wiley, W

NOTES On loan

The League was formed in 1888 to press for the improvement of **harbour** accommodation. The card shows an early suggestion for the formation of an inner **harbour** by cutting a canal from Belmore Basin into a deepened Tom Thumb Lagoon

DONOR On loan from Illawarra Historical Society

ACCESS Normal copyright restrictions apply

PRELIMINARY 2/06/98

OK AS

TITLE Wollongong **Harbour Trust** records

CONTENTS Schedule of Commissioners, 1889-94 (Kingswood 6/5168). 1 vol
Commissioners minute book, 29 Nov 1889- 4 Sep 1890 (Kingswood 6/4679)
Register of vessels arrived at Wollongong Wharf, 2 Jan 1891 - 29 Nov 1895 (Kingswood 6/5174). 1 vol.
Daily record of cabs receipts, 1890-95 (Kingswood 6/5173). 1 vol.

DESCRIPTORS Wollongong **Harbour Trust**

NOTES These records are held at the Archives Authority of New South Wales, Kingswood.

PRELIMINARY 1/2/99

OK JM

CALL NO MSS 26

TITLE Wollongong in 1900

CONTENTS For full contents see Local Studies Card Catalogue under Wollongong **Harbour Trust**
Includes : 9 page booklet; 3 page commentary (typescript)

DESCRIPTORS Wollongong
Wollongong **Harbour Trust**

DONOR On loan from Illawarra Historical Society

DATE RECEIVED 8 Apr 1981

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PRELIMINARY 2/06/98

OK AS

THE ILLAWARRA

A GUIDE TO THE INDUSTRIALISATION AND PROVISION OF INFRASTRUCTURE

The notes provide description of the following sites;

1. City to Botany Bay; Brief notes on Petrochemical Industry located on the northern side of Botany Bay. Brief notes on alterations of shore line to provide areas for Port Botany and Kingsford Smith Airport.
2. Botany Bay to Georges River;
Via General Holmes Drive and Rocky Point Road; Notes on Captain Cook Bridge.
3. Description of route through Sutherland Shire. Notes on side tour to Captain Cook's Landing Place at Kernell.
4. Description of route Sutherland to Waterfall and Stanwell Park.
5. Notes on the Development of the South Coast Railway. Major civil works as may be observed from Stanwell park.
6. Notes on Lawrence Hargrave. Aviation Pioneer- Site of Box kites experiments spirit caught today by hang gliders at same location.
7. Notes on earliest coastal navigation and observation of coal seams in coastal sea cliffs. Locality known today as Coalcliff.
8. Stanwell Park to Wollongong Harbour. Notes on original road pass established over the escarpment to Wollongong.
9. Wollongong Harbour; Notes on significance of site ;focus of early settlement and as a catalyst for early trade and development of Coal Industry and Coke. Notes on self Guided Walking tour and Reasons for listing under Institution's Plaquing Program.
10. Notes on development of heavy industry | Modern Steel Industry.
11. Notes on the development of Port Kembla
12. Side tour to Albion Park to site of Illawarra Light Rail Museum . Site of collection of transportation items associated with the early industrialisation of the Illawarra.
13. Return to Sydney on Princes Highway. Notes on work of Princes on location of highway route.
14. Notes on the establishment of Mt Ousley Pass
15. Notes on Cordeaux Dam | Side tour optional.
16. Notes on The Royal National Park.
17. Note on Tom Ugley's Bridge .

5. PLANNING FRAMEWORK

5.1 PLANNING OBJECTIVES

The Draft Illawarra Regional Plan sets out basic objectives, principles and policies for ports and harbours, and recreation and tourism, which are relevant to preparation of a management plan for Belmore Basin. These basic objectives, principles and policies are set out below.

5.1.1 Ports and Harbours

Objective

Minimise conflict in the use and development of ports and harbours by identifying their economic and functional role.

Principles and Policies

- . recognise Wollongong Harbour as a harbour of regional significance for the accommodation of fishing vessels, recreational craft, and tourism.
- . recognise the need for a management plan to minimize use conflicts within the harbour.
- . ensure that proposed development has regard for maintaining the scale and character of the harbour and for preserving all historic buildings and structures.

5.1.2 Recreation and Tourism

Objective

Manage the region's land and water resources so that there is a diversity of choice in activity and location for the greatest number of people, while ensuring that these resources are not used beyond their carrying capacity.

Principles and Policies

- . manage Illawarra's resources to optimise their use.
- . provide for forms of tourism within the region which will most benefit the regional population and visitors.

5.2 PLANNING CONSTRAINTS AND PRIORITIES

5.2.1 Waterway Area

The estimated waterway area requirement of the existing and future Basin users, from **Table 4.2**, is approximately 1.373 hectares. This is considerably greater than the total waterway area of Belmore Basin of approximately 1.024 hectares. The possibility of expanding the waterway area of Belmore Basin by modifying the alignment of the Basin walls has been previously examined (**Reference 1**), and has now been ruled out by the Public Works Department for a number of reasons, including the costs/benefits associated with the work and a recognition of the need to maintain the scale and character of the Basin and to preserve items of historical significance.

It is not generally known that Wollongong was the first port at which a "Harbour Trust," designated as such, was constituted in N.S.W. The recent decision by the Government of this State to construct an inner basin at Port Kembla lends further interest to the early history of Wollongong Harbour, where a plan for basin works at the same site in Tom Thumb Lagoon was submitted for consideration as early as 1887.



THE STATE'S FIRST HARBOUR TRUST

The Historic Port of Wollongong

E. B. STORM — Administrative Branch

WOLLONGONG Harbour as we know it today, a quiet and picturesque haven for trawlers, fishing vessels and pleasure craft, provides a distinct contrast to the busy activity which existed at the port during the latter part of the last century. It is rather difficult to visualise it now as having been once the largest and richest sea trading centre on the South Coast of New South Wales, second only to Sydney and Newcastle as a port in the volume of shipping handled each year.

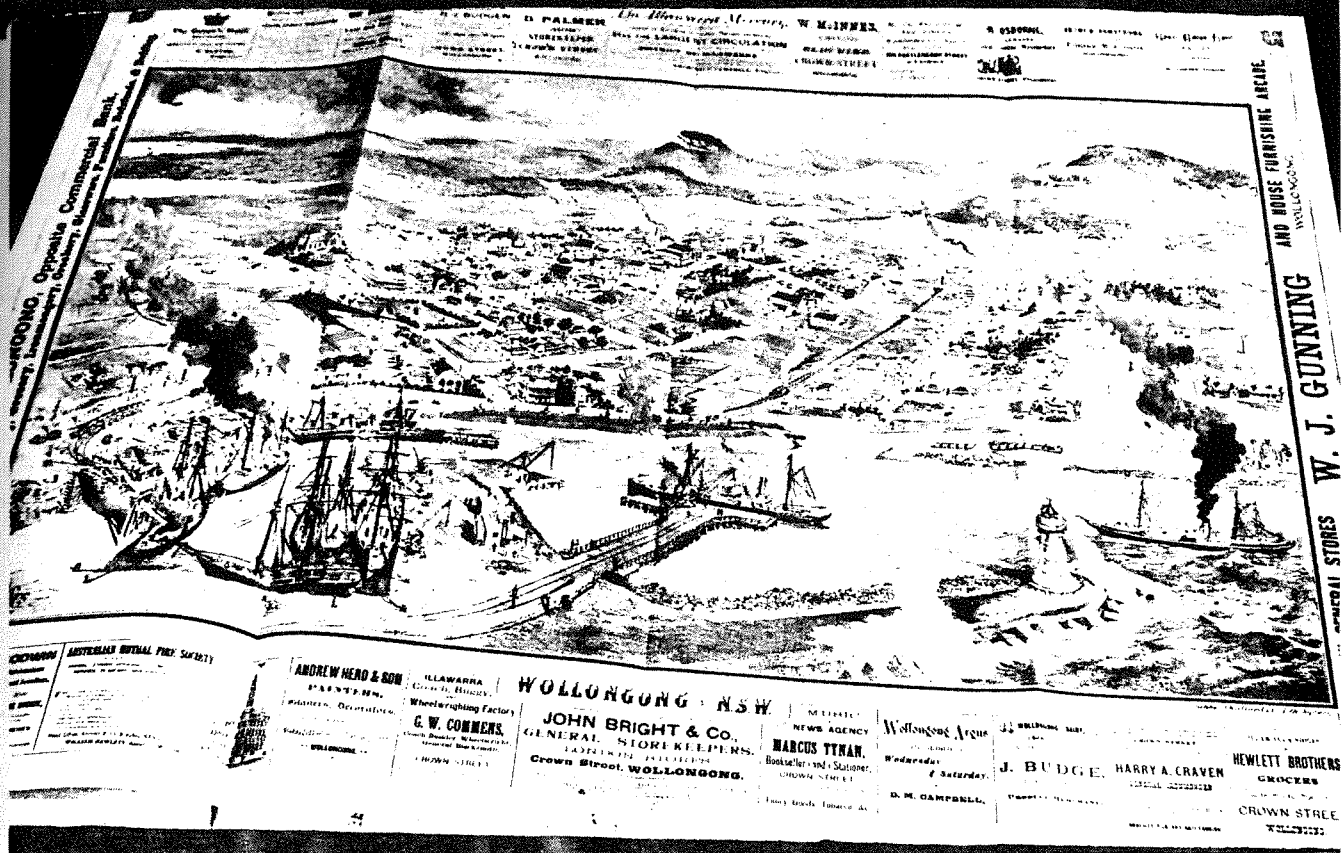
The first settlement in the Wollongong District took place in 1815. The heavily timbered cedar forests and rich grazing lands encouraged population of the area, despite the fact that the rugged terrain to the north and west hampered for many years the construction of roads from Sydney, which resulted in the district being virtually isolated except for sea transport. The earliest colonists referred to the settlement as "Five Islands," as these landmarks were the most prominent feature of the landscape to new arrivals. However, the native name "Wollongong" was adopted later, the meaning, according to records in

the Mitchell Library, being "The Song of the Sea."

By the early 1830's quite a number of farms had been established around Wollongong, the larger holdings being worked with convict labour. The comparatively sheltered sand beach near the present port was used as a loading point for the surplus farm products and for the cedar which grew so plentifully in the area. Small sailing vessels, ranging from 14 to 30 tons, were used to transport supplies from Sydney to Wollongong and carry back the local produce on the return trip, whilst some of them traded interstate with various commodities produced in the district.

The availability of abundant water and rich pasture lands lent itself to the development of the dairying industry rather than the farming of agricultural produce, and dairying later assumed a leading position in the primary industries of the district.

For many years, the extremely bad roads, which were little better than bush tracks, presented a major problem to the community. In fact, until 1884 the only access by land to the district lay along the rough



A contemporary artist's impression of Wollongong, published in the "Illustrated Sydney News" of 15th October, 1887.

track from Appin to the foot of the mountain range at Bulli, and it was not until that year that a new route at the site now known as Bulli Pass was surveyed and formed by Captain Westmacott to give the Illawarra District a reasonable road link with Sydney. With such slow development of access by road, emphasis was, of necessity, placed on sea transport, without which the Wollongong community would have been unable to dispose of its products or obtain supplies without great difficulty.

In 1831 a small ship repair yard was established near the present harbour site by a Mr. Cunningham. The "Sophia Jane" of 156 tons, the first steamer to come to New South Wales, paid a visit to the port in 1834 and by 1839 the first regular steamship service for passengers and cargo between Sydney and Wollongong had been inaugurated with the s.s. "Maitland."

Steady growth in the volume of shipping using the port led to the preparation of plans for the construction of a sheltered harbour. The original design, prepared

in 1834, for the construction of a breakwater to form a sheltered area for shipping was abandoned and in 1837 approval was given for a harbour in the form of a basin to be cut into the rocky foreshore, whilst the stone excavated from the basin site was to be used to form a pier on the northern side.

As the work proceeded, it became apparent that the original design would prove inadequate to cater for the growing demands of shipping, so rapid and unprecedented had been the growth of the trade of the district. Accordingly, the Government found it necessary to review the scheme and, in 1841 it was reported that the dimensions of the basin were to be extended. By November, 1844, it was stated that "the harbour at Wollongong might now be considered as completed." The work on the pier, the basin and its approaches to that stage of construction had taken almost 7 years to complete at an expenditure in the vicinity of £3,500.

The advent of coal production in 1849 marked the beginning of an industry which later occupied a dominant position in the activities of the district and still plays an important part in the wealth and prosperity of Wollongong. In April, 1857, a second colliery, the Osborne Wallsend coal mine, was opened a short distance from the Mt. Kiera workings and by September of that year considerable quantities of coal were being shipped to Sydney.

With the continued growth of the coal trade, and the consequent increase in the number of vessels using the Port, a petition was submitted to the Government by local trade interests for the further improvement of harbour facilities. Early in 1859, plans were approved for the construction of a new basin opening into the original basin area and the building of a breakwater for the protection of the outer roadstead. The work, estimated to cost £27,000 was of such magnitude that the Government found it impracticable to secure one contract for the complete scheme, and had to arrange a series of smaller contracts for labour only, the necessary plant being provided by the Government. Work on the project commenced in 1861 but once more the continued rapid growth of shipping and trade made it necessary to revise the plans which were amended twice during the progress of the work. In 1864 and 1866 additional sums of £8,000 and £10,000 were voted by Parliament to increase the size of the basin, provide greater depth of water and erect elevated staiths for loading coal into vessels.

When completed in 1868, the harbour works provided more than 1,700 ft. of berthing frontage—enough for about 15

vessels in those days—with a total basin area of about 3 acres and three coal staiths capable of handling 3,000 tons of coal per day. The official opening ceremony was performed by the Governor, the Earl of Belmore, and the main harbour works were named Belmore Basin in honour of his wife, the Countess of Belmore.

The rapid development of the coal export trade gave the port of Wollongong an increasing importance in the economy of the State. By 1868, the year in which the completed harbour works were opened, the annual exports of coal had grown to more than 31,000 tons, and 10 years later had almost trebled to more than 92,000 tons. In 1867, the first cargo of coke to be exported from Wollongong was shipped in the "Lady Emma," this consignment being the forerunner of the great coke-making industry which was established in the Illawarra district.

Further harbour improvements in 1880 included the erection of a Tee-Jetty in the outer harbour equipped with a steam crane and rail connection to the lines from the local coal mines, a sea wall of masonry to provide shelter for vessels at this jetty, and an additional coal staith at Belmore Basin. Following these improvements, the Port of Wollongong reached the peak of its growth and importance, the annual number and tonnage of ships using the port being exceeded only by those at Sydney and Newcastle. The pilot station records for the year 1885 show that 1,624 vessels were cleared through the port, an average of 135 vessels per month. Considerable tonnages of general imports and exports were handled in addition to cargoes of coal totalling almost 170,000 tons excluding bunkers. Exports from the district

By courtesy Mr. W. E. James.

A recent aerial photograph of the Port of Wollongong.



After a comparatively short life of only 5 years, the Wollongong Harbour Trust was dissolved in 1895 at the Commissioners' request and the Government once more assumed control of the harbour.

A harbour lighthouse on the breakwater was erected in 1871 and the main Wollongong lighthouse on the headland above the port was built by the Commonwealth in 1937.

The construction of the railway from Sydney through Wollongong to Nowra and the gradual development of the nearby deepsea harbour of Port Kembla led to the decline of Wollongong as a commercial port. As far back as 1883 a jetty was constructed at Red Point (now known as Port Kembla) by the Mount Kembla Coal & Oil Company and a railway was built from the Company's mine near Mount Kembla to serve the jetty. Under the terms of the Act of Parliament which authorised the Company to construct this line, authority was also given for a railway line to be built from the mine to Wollongong Harbour, but this work was not proceeded with. A second jetty at Red Point was built by the Southern Coal Company in 1887 and both the jetties at this site had accommodation for vessels of deeper draft than those which were trading to Wollongong. At that time, no one would have thought that the shipping point at the site of the future Port Kembla would develop ultimately into a major deepsea port which would over-

shadow the port of Wollongong and take from it the coal trade which had originally grown so strongly at the latter port.

Agitation continued for the provision of a safe deepwater port to serve the southern coalfields, and in 1895 the site at Red Point was chosen for the construction of an artificial harbour. As the first shipping facilities in this area had been built to serve the Mount Kembla mine, the name "Port Kembla" was adopted and in 1898 the Port Kembla Harbour Act was passed to authorise the projected works.

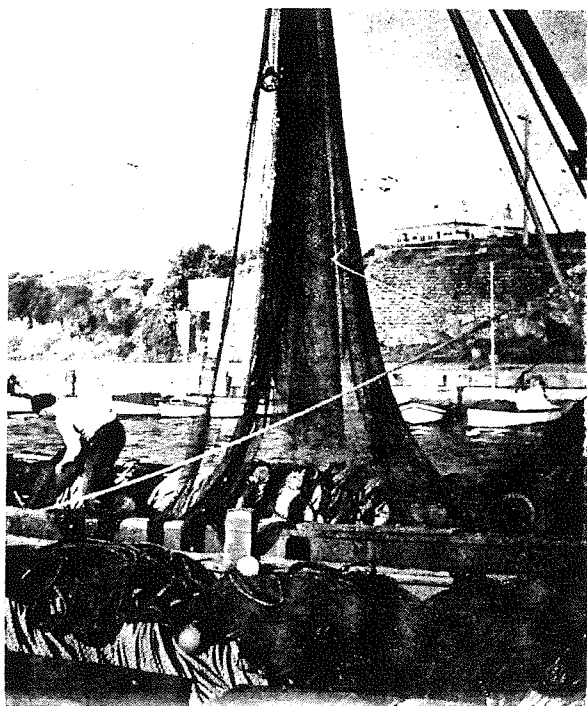
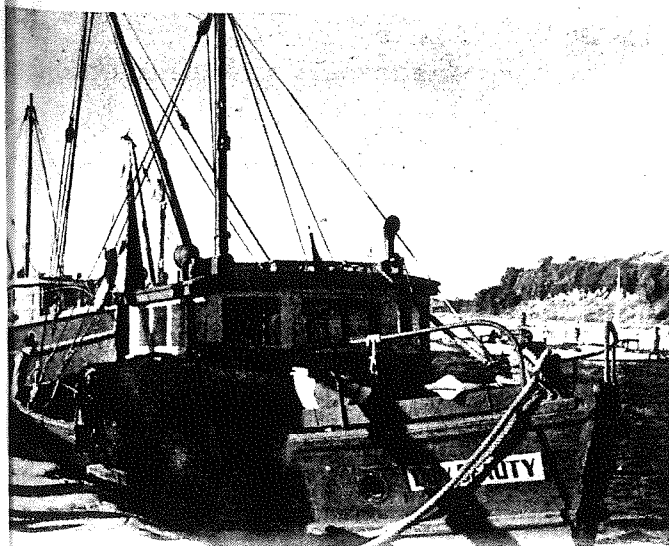
It is of particular interest to record that the inner basin which is about to be constructed to provide additional sheltered berthing areas at Port Kembla will occupy roughly the site which was first proposed as far back as 1887 for the construction of a shipping basin connected with the port of Wollongong.

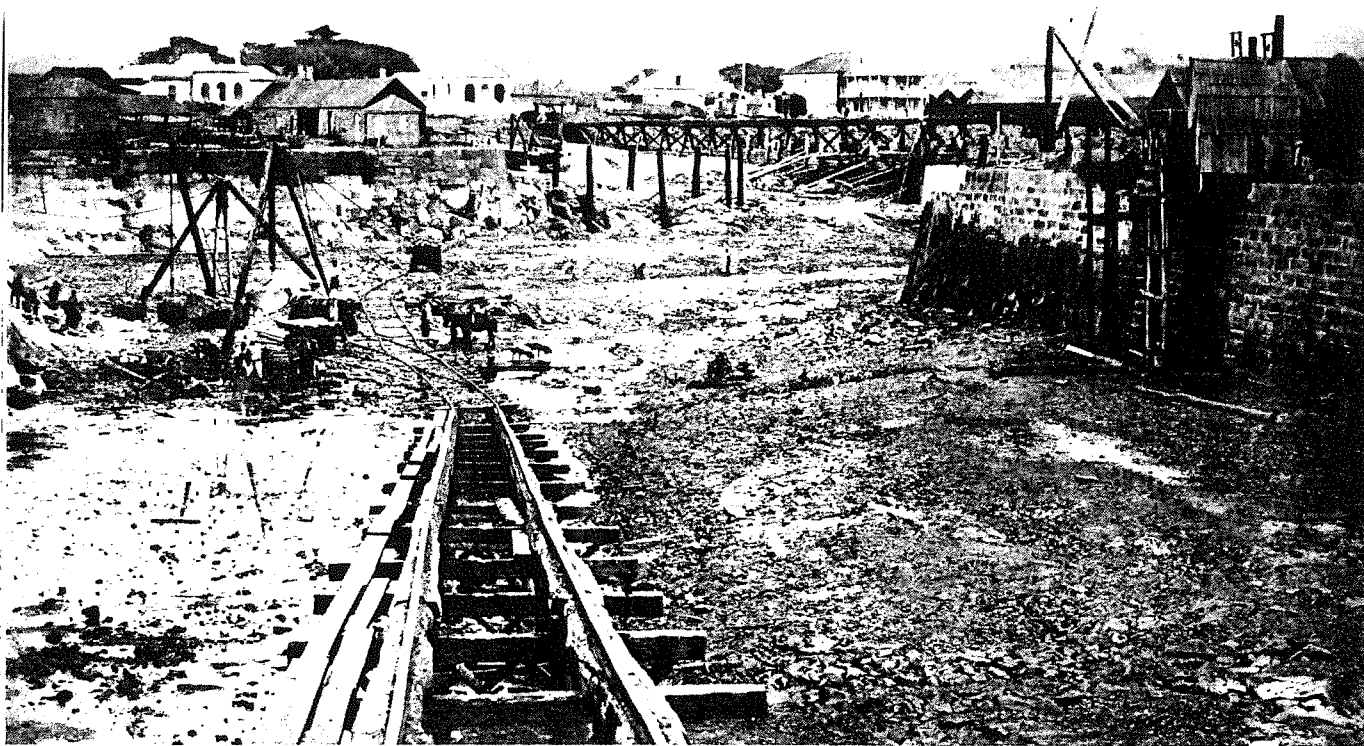
Although Port Kembla has developed to become the great industrial heart of the South Coast area and the harbour there provides facilities for all the interstate and overseas trade of the local industries, Wollongong still remains the business, commercial and administrative centre of the Illawarra district, having passed through the early era of colonisation to become the third largest city in the State of New South Wales.

Acknowledgment is made to the paper on the Port of Wollongong prepared by Mr. C. W. Gardiner-Garden from which some items of information were drawn for inclusion in this article.

more Basin is now used almost exclusively as a fishing port.

Photos by courtesy N.S.W. Govt. Tourist Bureau.





Belmore Basin, Wollongong, here shown under construction, was completed in 1868. The coffer dam can be seen in background.

included a substantial portion of the butter supply for the Sydney area, the average annual export at that time being more than 1,500,000 lb.

One interesting item in the Pilot Station log for the 13th June, 1889, gives a picture of the volume of trade centred at Wollongong and reads "Harbour full—No more could enter—Stand off signal up."

The feeling was growing among residents of the district that some form of local Authority would be preferable to deal with the many problems associated with the rapid growth of trade and shipping at the Harbour. Following discussions conducted by the Mayor, the Wollongong Harbour Trust League was formed to advocate the formation of a Trust to control the port and carry out further improvements, including the provision of rail connection with the main railway system and the development of a deep water basin in Tom Thumb Lagoon connected with Wollongong Harbour by a canal more than 1 mile in length. Representations were made to the Government and in October, 1889, the Wollongong Harbour Trust was inaugurated by the passing of an Act empower-

ing the appointment of Commissioners to control the existing harbour and to construct "a convenient, safe and commodious harbour" and to develop an extensive dock or basin in Tom Thumb Lagoon connected with the Harbour.

The Commissioners, who were appointed to represent shipowners, traders, colliery proprietors, local Municipal interests and the Government, held their first meeting in January, 1890. They decided to discard the plan for a basin, and after seeking the advice of Sir John Goode, C.E., an eminent authority on harbour construction, decided to form an enclosed harbour of 107 acres by constructing two breakwaters and three jetties to the north of Wollongong Head, the whole scheme being estimated to cost £537,000. Due to lack of finance the project was abandoned and a start made with a less ambitious proposal to build a breakwater north of the harbour light, but this scheme was also dropped after about 80 yards had been constructed. Some preliminary works near Pulpit Rock and the short length of breakwater near the lighthouse are the only remaining evidence of projects carried out under the supervision of the Trust.

Tranquil Wollongong Was Once a Busy Harbour

Wollongong Harbour as we know it today, a quiet and picturesque haven for trawlers, fishing vessels and pleasure craft, provides a distinct contrast to the busy activity which existed at the port during the latter part of the last century.

It is rather difficult to visualise it now as having been once the largest and richest sea trading centre on the South Coast of New South Wales, second only to Sydney and Newcastle in the volume of shipping handled each year.

The first settlement in the Wollongong District took place in 1815. The heavily timbered cedar forests and rich grazing lands encouraged population of the area, despite the fact that the rugged terrain to the north and west hampered for many years the construction of roads from Sydney, which resulted in the district being virtually isolated except for sea transport. The earliest colonists referred to the settlement as "Five Islands," as these landmarks were the most prominent feature of the landscape to new arrivals. However, the native name "Wollongong" was adopted later, the meaning, according to records in the Mitchell Library, being "The Song of the Sea."

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Passenger Service

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Advent of Coal

The advent of coal production in 1849 marked the beginning of an industry which later occupied a dominant position in the activities of the district and still plays an important part in the wealth and prosperity of Wollongong. In April, 1857, a second colliery, the Osborne Wallsend coal mine, was opened a short distance from the Mt. Kiera workings, and by September of that year considerable quantities of coal were being shipped to Sydney.

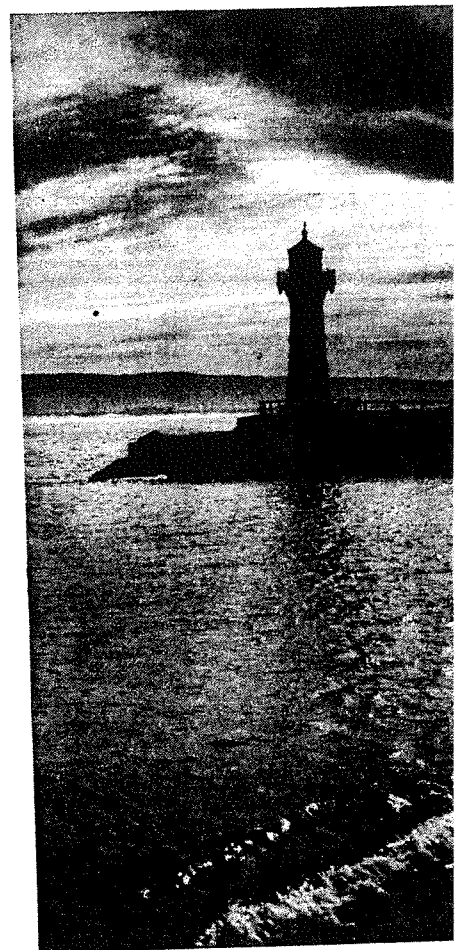
Early in 1859, plans were approved for the construction of a new basin opening into the original basin area and the building of a breakwater for the protection of the outer roadstead.

The work, estimated to cost £27,000, was of such magnitude that the Government found it impractic-

able to secure one contract for the complete scheme, and had to arrange a series of smaller contracts for labour only, the necessary plant being provided by the Government.

Work on the project commenced in 1861, but once more the continued rapid growth of shipping and trade made it necessary to revise the plan which were amended twice during the progress of the work. In 1860 and 1866 additional sums of £800 and £10,000 were voted by Parliament to increase the size of the basin, provide greater depth of water and erect elevated staiths for loading coal into vessels.

When completed in 1868, the harbour works provided more than 1700 feet of berthing frontage enough for about fifteen vessels those days—with a total basin area of about three acres and three staiths capable of handling 3000 tons of coal per day. The official opening ceremony was performed by the Governor, the Earl of Belmore, and the main harbour works were named



A well known landmark—the Wollongong Harbour lighthouse stands as a sentinel against wind swept skies.—Photo by courtesy N.S.W. Government Tourist Bureau

Belmore Basin in honour of his wife, the Countess of Belmore.

The rapid development of the coal export trade gave the port of Wollongong an increasing importance in the economy of the State.

By 1868, the year in which the completed harbour works were opened, the annual exports of coal had grown to more than 31,000 tons, and ten years later had almost trebled to more than 92,000 tons.

Further harbour improvements in 1880 included the erection of a Tee-Jetty in the outer harbour equipped with a steam crane and rail connection to the lines from the local coal mines, a sea wall of masonry to provide shelter for vessels at this jetty, and an additional coal staith at Belmore Basin.

Following these improvements, the Port of Wollongong reached the peak of its growth and importance, the annual number and tonnage of ships using the port being exceeded only by those at Sydney and Newcastle. The pilot station records for the year 1885 show that 1624 vessels were cleared through the port, an average of 135 vessels per month.

Harbour Was Full

One interesting item in the Pilot Station log for the 13th June, 1889, gives a picture of the volume of trade centred at Wollongong and reads "Harbour full—no more could enter—Stand off signal up."

The feeling was growing among residents of the district that some form of local authority would be preferable to deal with the many problems associated with the rapid growth of trade and shipping at the harbour. Following discussions conducted by the mayor, the Wollongong Harbour Trust League was formed to advocate the formation of a trust to control the port and carry out further improvements, including the provision of rail connection with the main railway system and the development of a deep water basin in Tom Thumb Lagoon connected with Wollongong Harbour by a canal more than one mile in length.

Representations were made to the Government and in October, 1889, the Wollongong Harbour Trust was inaugurated by the passing of an Act empowering the appointment of Commissioners to control the existing harbour and to construct "a convenient, safe and commodious harbour" and to develop an extensive dock or basin in Tom Thumb Lagoon connected with the Harbour.

The Commissioners held their first meeting in January, 1890, and after seeking the advice of Sir John Goode, an eminent authority on

harbour construction, decided to form an enclosed harbour of 107 acres—the scheme to cost £537,000. Due to lack of finance the project was abandoned and a start made with a less ambitious proposal to build a breakwater north of the harbour light, but this scheme was also dropped after about 80 yards of breakwater had been constructed. Some preliminary works near Pulpit Rock and the short length of breakwater near the lighthouse are the only remaining evidence of projects carried out under the supervision of the trust.

After a comparatively short life of only five years, the Wollongong Harbour Trust was dissolved in 1895, at the Commissioners' request and the Government once more assumed control of the harbour.

A harbour lighthouse on the breakwater was erected in 1871, and the main Wollongong lighthouse on the headland above the port was built by the Commonwealth in 1937.

Port Kembla Developed

The construction of the railway from Sydney through Wollongong to Nowra and the gradual development of the nearby deep-sea harbour of Port Kembla led to the decline of Wollongong as a commercial port.

A jetty at Red Point, Port Kembla, was built by the Southern Coal Company in 1887, and both the jetties at this site had accommodation for vessels of deeper draft than those which were trading to Wollongong. At that time no one would have thought that the shipping point at the site of the future Port Kembla would develop ultimately into a

major deep-sea port which would over-shadow the port of Wollongong and take from it the coal trade which had originally grown so strongly at the latter port.

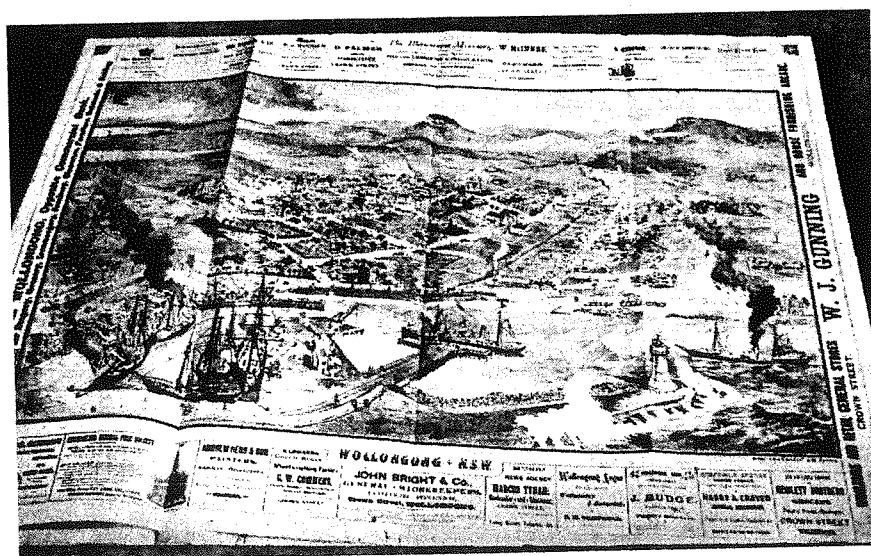
Agitation continued for the provision of a safe deep-water port to serve the southern coalfields, and in 1895 the site at Red Point was chosen for the construction of an artificial harbour. As the first shipping facilities in this area had been built to serve the Mount Kembla mine, the name "Port Kembla" was adopted and in 1898 the Port Kembla Harbour Act was passed to authorise the projected works.

It is of particular interest to record that the inner basin which is about to be constructed to provide additional sheltered berthing areas at Port Kembla will occupy roughly the site which was first proposed as far back as 1887 for the construction of a shipping basin connected with the port of Wollongong.

Although Port Kembla has developed to become the great industrial heart of the South Coast area and the harbour there provides facilities for all the Interstate and over-sea trade of the local industries, Wollongong still remains the business, commercial and administrative centre of the Illawarra district, having passed through the early era of colonisation to become the third largest city in the State of New South Wales.

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A contemporary artist's impression of Wollongong published in the "Illustrated Sydney News" in October, 1887. The pier at which the sailing ships are berthed is the area in which the fishing smacks are pictured on the front cover of "The Review."



NUMBER

872 JAN 30 '99 12:50

service and the prohibitive cost. It is generally the responsibility of the tenants on the central spur to provide their own facilities as required by local authorities.

There are no public toilets on the Department's land. However, such a facility is to be provided in the new Co-operative complex.

Garbage removal from each of the premises around the Harbour is the responsibility of the lessee. Concerning the management of rubbish generated around the Harbour primarily by visiting members of the public, the Department has provided a facility for the storage of waste containers in the north east corner of the Harbour, to be serviced by Council. Litter bins at convenient points around the Harbour have also been provided by the Department with their servicing again being the responsibility of Council.

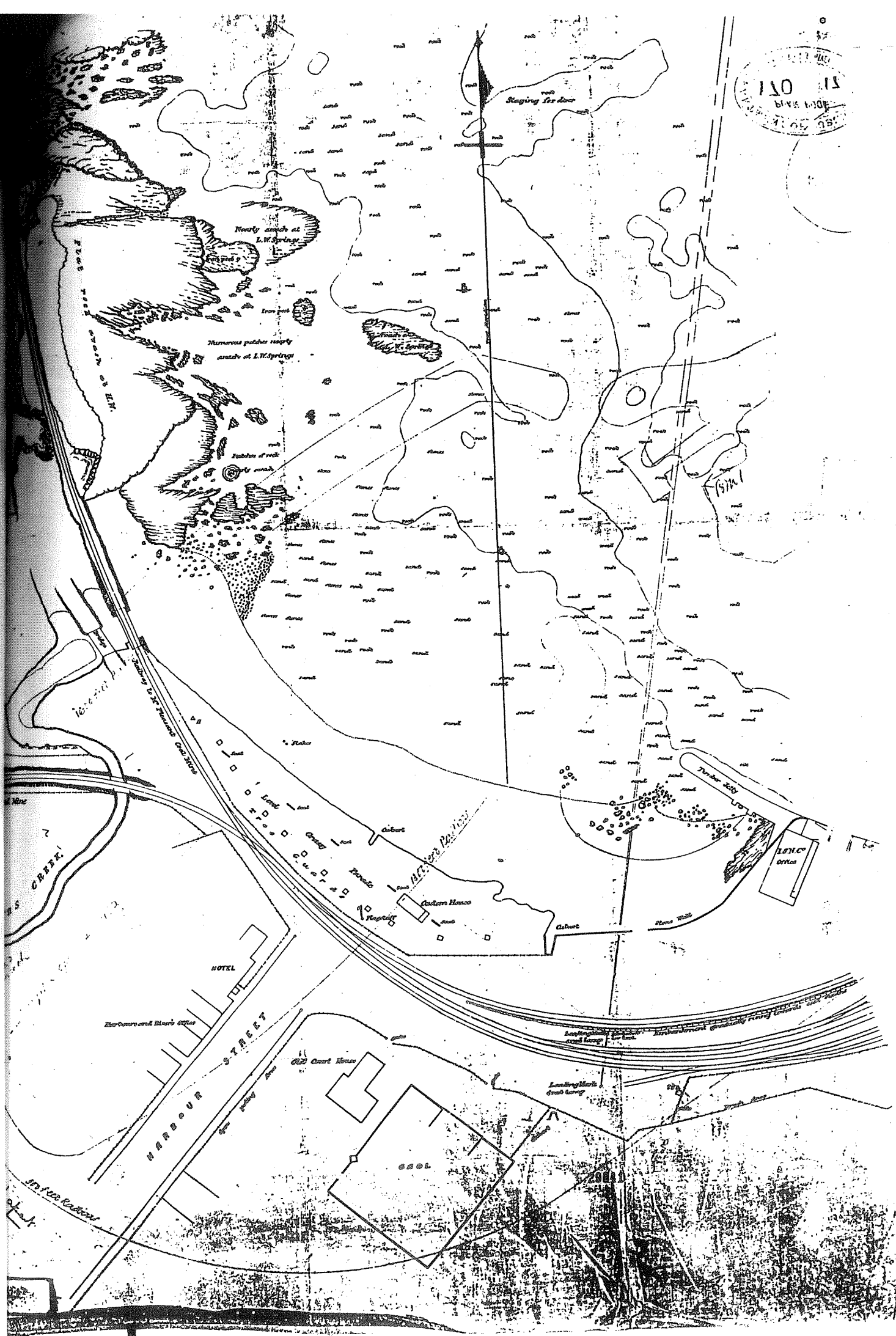
Examples of services to individual users, in which the Department has had no construction role include a pump out sewerage facility for the RVCP, telephone and power services to various tenants, and a natural gas supply to the Fishermens Co-operative building.

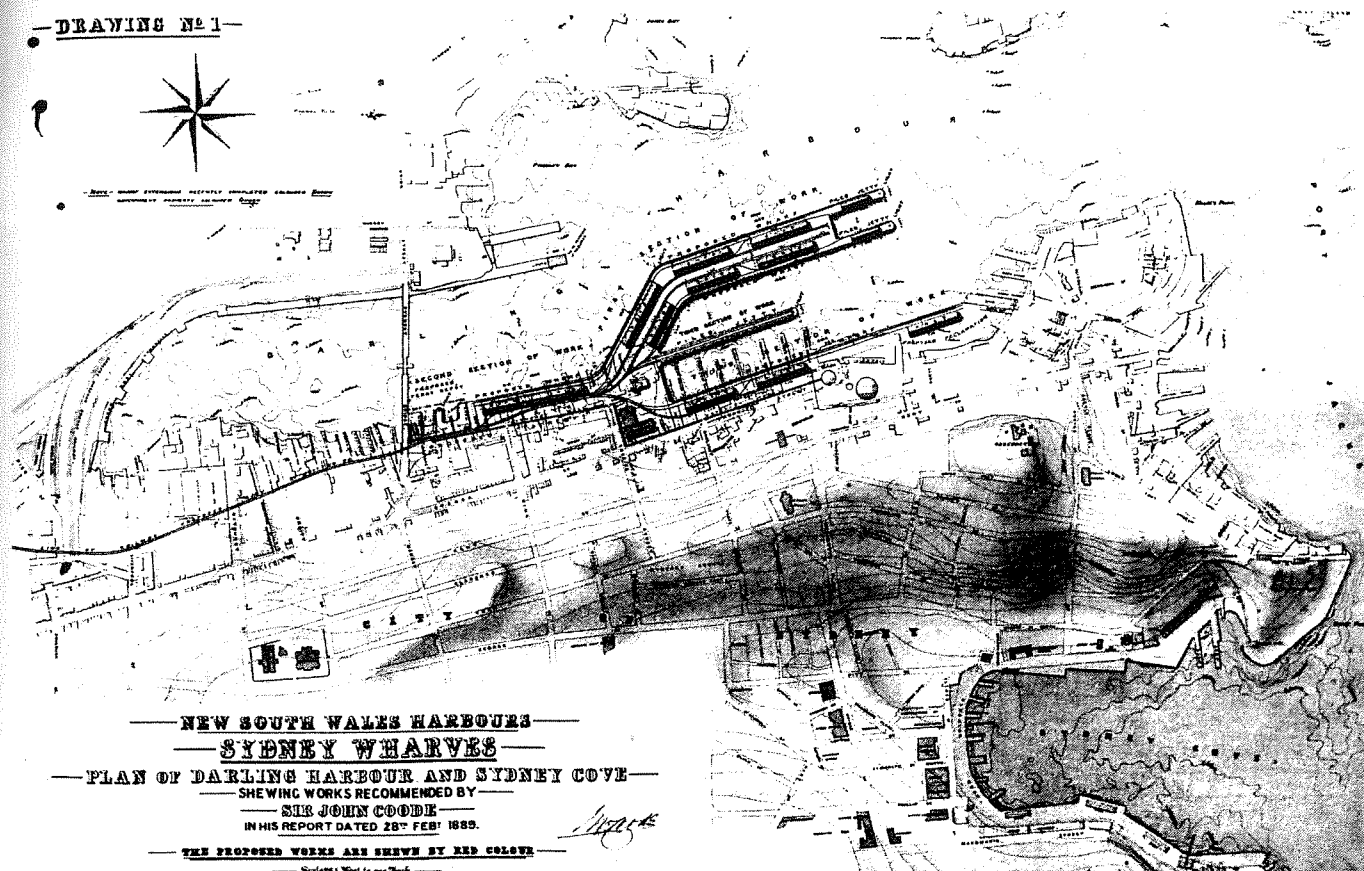
3.10 HERITAGE ASPECTS

Belmore Basin is a man made construction excavated during the late 1860's for use as a port in the coal trade. In 1868, the year the new harbour works were opened, approximately 31 000 tons of coal passed through the port. The Basin area has been identified as having considerable heritage significance and has been entered in the National Trust Register and the Register of the National Estate. Of particular significance are the Basin walls, the historic steps cut into the Basin wall on the central spur, the historic "slipway" adjacent to the RVCP building, and the lighthouse (see **Exhibit 1**).

APPENDIX A

EXHIBITS





An 1889 plan of proposed work at Darling Harbour, from recommendations by British harbours engineer Sir John Coode, and the NSW chief engineer for railways, John Whitton (ML)

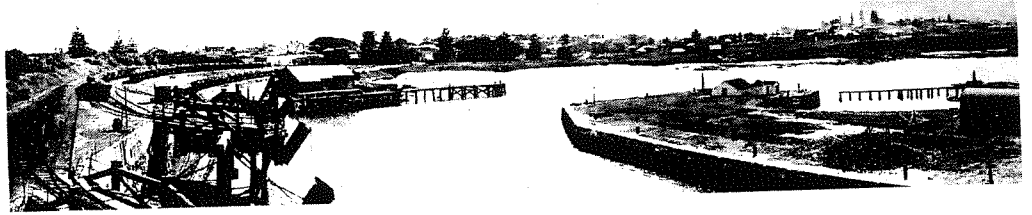
public event, steamers arriving loaded with Sydney visitors for the celebrations on a bright spring day in 1868. In that year, every day at least two ships cleared the port: coasters like the paddle-steamers *Hunter*, *Kembla*, *Kiama*, and *Illalong*, carrying passengers and general cargo, as well as dairy products and other fresh produce to Sydney. Just as familiar were the colliers, slower sailing vessels, increasing in frequency as coal exports tripled in the decade after the opening of Belmore Basin. Accelerating demand for farm produce in Sydney and new land legislation aimed at achieving close settlement fuelled the growth of the port and investment in shipping; in the 1870s the basin was widened with additional port facilities including a lighthouse.⁶

Illawarra Steam Navigation Company (ISNC) steamers called twice weekly at Wollongong. Colliers used the harbour more after the railway reached the town in 1887 and coal previously loaded at open jetties was trucked instead to Belmore Basin. Loading at the ocean jetties was often dangerous as the colliers had to be moved during the process. The jetties were also at risk, with the Coalcliff jetty washed away twice in five years. A schooner wrecked on Bellambi Reef in 1885 became itself a hazard to shipping when the wreck settled in eleven fathoms of water, its masthead near the surface, just inside the roadstead of Wollongong-bound vessels.

Dairy farming dominated the Illawarra economy, with small farms, usually run by tenant farmers, spread along the coastal fringe from Fairy Meadow to Gerringong. By 1867 there were 370 tenant farmers on Berry's estate, and selectors in the Kangaroo Valley sent butter on packhorses to be loaded at Broughton Creek. The Shoalhaven was one of the most important ports of call for ISNC steamers, but also—next only to Wreck Bay—the site of most shipwrecks on the coast south of Sydney. Public Works built wharves along the river which ships entered via the Crookhaven and the Berr Canal, dredged constantly by the *Pluto* to keep it open. In 1873, however, floodwater washed through the sandbanks plugging the Shoalhaven, carrying the SS *Coolangati* into the sea. The Gerringong Steam Navigation Company had established their own

⁶ *Illustrated Sydney News*, 17 March 1870, p. 360; *Town and Country Journal*, 8 February 1873; J.E. Gallagher, 'The outports of New South Wales', University of Newcastle, PhD thesis, 1979, p. 79; C.W. Gardiner-Garden, *Port of Wollongong*, Wollongong, Illawarra Historical Society, 1975, pp. 36f.

Wollongong harbour in the 1920s from Moriarty's 1868 Belmore Basin, looking out to Barney's 1844 harbour (NLA)



Point) to 1000 feet by constructing breakwaters from Lookout Point and Munganno Point. Asked to assess the relative merit of the designs, Buchanan reasoned that the direction of littoral drift would be around the bay in a northerly direction and that de Burgh's breakwater should be built west of Munganno Point in a north-westerly curve, with a gap at the south end for the supposed drift and to dissipate debris from the Towamba River. Although Buchanan agreed with Burrows that likely shipping needs would be served by this smaller scheme, he shared the view of the natural potential of Twofold Bay and wrote:

Mr Keele's ambitious scheme of closing in the portion of the bay between Lookout Point and Munganno Point . . . would create a magnificent area of deep water, and nullify for many decades the fears expressed above with regard to the smaller breakwater from Munganno Point.

As if reluctant to see this vision fade, he sought a compromise between the common sense of Burrows' plan and the romance of Keele's, by recommending that when funds were available the former should be built in such a way as to become part of a later construction of the Keele scheme.⁷

Shipping at Jervis Bay in the 1920s was negligible, an average of two small coasters calling each week to collect timber, for which no tonnage figures were kept. Before 1914, there were four or five ships each week in Twofold Bay, but by 1924 the number had halved, with 5000 tons of cargo including butter and farm produce, though timber was still the major cargo. Though a much more economical port than many of those on the north coast, the figures prepared for Buchanan included Twofold Bay among the two-thirds of New South Wales' coastal ports operating at a loss when the cost of maintaining berths, shipping channels, wharves, moorings and other facilities was compared with net revenue from tonnage rates. Of the thirteen south coast ports operating in 1925, only Moruya rated lower on this cost-benefit scale, and of those on the far south coast, Tathra returned the highest revenue.

There was nonetheless plenty of activity at the port, though Eden was denied its railway. Vast quantities of timber, squared where it was felled, were stacked at the Allen Taylor wharf at Quarantine Bay, and Fisheries Beach at East Boyd, as well as at the Snug Cove wharf, to meet the demand for railway sleepers in New South Wales and an export trade to China. The bay was busy with smaller ships, from the launch *Oneida*, which made the regular run across the water to Bittangabee with mail and supplies for local residents, including those at the Green Cape lighthouse, to the whaling fleet. Regattas were very popular and at Eden, as well as the usual major sailing and rowing events, a tough whaleboat race on a course of a mile from Keefe Pinch to the end of the main wharf was a prominent event.⁸

Ulladulla and Illawarra

During the early 1920s most of the ports were still busy enough for postwar optimism and indicators of recovery to outshine the bleak signs of a declining shipping trade. The prospects for development of new deep-sea ports in the broad bays of Jervis Bay and Twofold Bay were investigated in 1914, in 1924, in 1925, and again by the Nicholson Royal Commission in 1931. Meanwhile the coastal ports kept working, with

⁷ Tye to Buchanan, 12 June 1925, printed in Buchanan, vol. 2 pp. 9f.; also pp. 22f.

⁸ Phillips, op. cit., pp. 41, 54f.



Ulladulla jetty, 1936
postcard (ML)

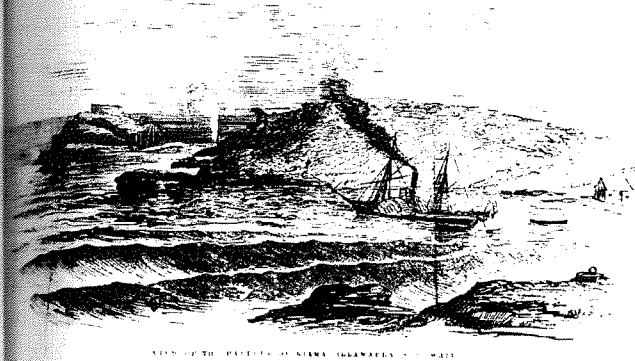
Public Works continuing the high level of maintenance work necessary. The oldest ports were those closest to Sydney: Wollongong, Shellharbour, Gerringong, and Kiama, proclaiming their veteran status by their English-style harbours with perpendicular blockwork walls and stone quaysides, the only such harbours built on the New South Wales coast. The viability of these ports was under threat from the railways, and the ISCSNC exempted them from an increase in freight charges in 1926 due to this competition.

In the Illawarra region Port Kembla grew apace, swallowing all the funding provided, while little work was done at the parent port of Wollongong, though the population of the town doubled between 1921 and 1933 as a by-product of the Port Kembla development. The breakwater at Wollongong was kept in repair with concreting and concrete blocks, but the timber jetty deteriorated and was removed in 1925, a mooring dolphin with a gangway from the shore installed as a replacement. Wooden mooring posts were replaced with iron hook-and-eye moorings set in concrete, and two bays of the old 'T' jetty dismantled, further reducing maintenance costs. Some of the army of unemployed people in Wollongong worked on breakwater repairs between 1932 and 1935, and in 1938 built a 100-foot stone wall to halt erosion on the northern side of the basin.

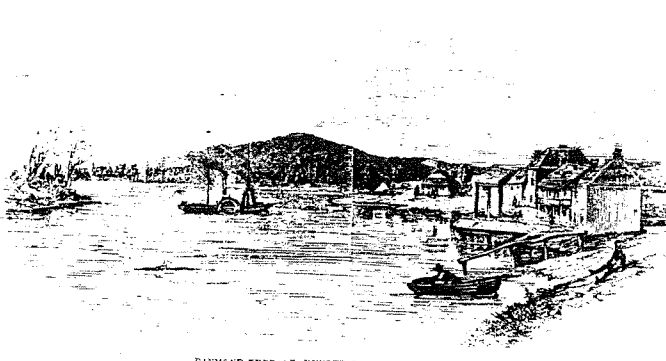
At Kiama, the shipping of blue metal from the basalt quarries which had been taken over by Public Works in 1911 resumed after the war. Regular maintenance kept the wharf and the metal bins berth in good condition, until the Depression decreased the stone trade in 1929–1932. A fond and familiar sight were the little trains running through the town to the wharf where the *SS Bombo* loaded, with the *SS Allowrie* or the *SS Eden* at the ISCSNC berth. The 1876 sea wall forming the Robertson Basin was repaired after storm damage in 1935 and the Kiama breakwater concreted. The State Metal Quarries were sold in 1938 as part of a general divestment of government-owned enterprises and the blue metal berth leased to Quarries Ltd., the new owner of the Kiama basalt quarry, with the company repairing the berth under the supervision of Public Works engineers.⁹

Wattlebark, timber from the district's sawmills, and dairy products were the major cargoes from Ulladulla in the 1920s, and a demand for shellgrit made this an increasing export here as at Port Stephens. Mining of silica deposits at Milton began in 1918 to produce bricks for furnace lining at BHP's new Waratah steelworks at Newcastle. The silica was shipped from Ulladulla until Public Works built a loading wharf at Bannister Point in 1921. Maintenance at Ulladulla in the 1920s included repairs to the jetty and road and removal of a substantial amount of silica from the berth, and in the 1930s

9 J.P. Bach, *A maritime history of Australia*, Melbourne, Nelson Hamilton, 1976, p. 332; Gallagher, *op. cit.*, p. 297; Don Cottee and Yvonne McBurney, *Terralong tracks, Kiama*, Sydney, Educational Materials, 1987, pp. 53f.



VIEW OF THE PORT OF KIAMA (SHOALHAVEN) FROM THE WATER



RAYMOND TERRACE, HUNTER RIVER, NEW SOUTH WALES

acking of wharves, jetties and road and railway bridges. At Kiama a harbour development committee secured government funds for a public wharf, built in 1852. Six years later the community lobbied for an extension to the wharf, as in stormy weather steamers returned to Sydney without landing mail, goods, or passengers—even in fine weather the swell made it too dangerous for passengers to be landed in open boats. Sent by Public Works to survey the proposal, John Debenham pointed out that 'the bay itself is but a slight indentation in the coastline' and extending the wharf would not help, as it was too near the head of the bay. As there was a rock bottom, with up to three feet of sand and boulders on top in some places, Debenham recommended a stone wharf within the shelter of a breakwater, using freestone carried from the northern shore, with 'whinstone' from the southern side as 'an excellent facing'.¹³

Few vessels could cross the river entrance to the Shoalhaven and the flat-bottomed *Wangatta* was built there in 1843 to ship cedar to Sydney. The Broughton Creek wharf became the port of Berry and in 1858 the newly representative legislators in the Assembly heard petitions for funds to clear the Shoalhaven–Crookhaven canal, arguing that Monaro wool would then come to Berry. Vessels were frequently detained outside the entrance for weeks at a time, and left their marks—mounds of sand the waves sculpted along their sides. This district was Sydney's pantry, chief among the shippable goods was potatoes, so delays and transshipment added to the costs while reducing the value of the produce. The 343 Shoalhaven petitioners were encouraged when John Debenham arrived to survey the entrance, but he reported the most serious obstacle was the tidal confluence at Horseshoe Flats. He deduced that there the forces of the currents from each river were neutralised and the sediment deposited was not moved by the sluggish ebb flow. He reported two other flats in the Crookhaven immediately above and below Greenwell Point and advised:

Nature, in this instance, cannot be induced to remedy the evils she has created . . . any works which might be projected for the improvement of . . . the Shoalhaven would be of a costly and stupendous character and would be constantly met with engineering difficulties.¹⁴

Left: The exposed harbour at Kiama, showing the blowhole on the left and the paddle-steamer *Kiama*, sketched in 1858 when a recommendation was made for a breakwater (NLA)

Right: In 1857 Raymond Terrace was a port strategically located at the junction of the Paterson and Williams rivers, tributaries of the Hunter (NLA)

harbour of Newcastle is a very dangerous one indeed

difficulties of shipping coal from the Illawarra—anticipated by Bass when he saw the coal and the cliffs there—meant that most of Sydney's coal came from the AAC's Newcastle mines. Work on the Macquarie Pier, suspended by Brisbane in 1822, was resumed in the 1830s and when Barney inspected the work in 1836 he stopped the export of rock from Beacon Hill, pointing out that stone quarried from Nobby's was being better in the causeway in rough conditions. The breakwater was still unstable, washaways frequent, and another problem was noted by naval surveyor John

13 *Blue Books* 1852–1853; AONSW 2/896; Debenham to Barney, 19 July 1858, NSWLAV&P 3, 1858, pp. 787f.; W. Sutherland, *Great Australians*, Melbourne, Oxford University Press, 1967, p. 17.

14 Petition from Shoalhaven inhabitants, Debenham to Barney, 31 May 1858, NSWLAV&P 1858, 3, pp. 782, 786.

temporarily opened the entrance in 1847 and ten years later the new Broulee e petitioned parliament on the necessity and practicality of maintaining an ent dredging. In response, Moriarty sent a surveyor in 1861 to investigate.¹⁰

Prime Wollongong butter

The farmers who followed the cedar-cutters in the Illawarra were usually poor occupying small areas of bushland under 'clearing leases'. They held the land for seven years in return for clearing the dense rainforest vegetation. Their came from cultivating crops of maize and vegetables, and from cattle and pig supplied Sydney larders with butter, cheese, salt pork, and vegetables, and the f and mills at Botany, Chippendale, and Darling Harbour with hides, bones, wh maize.

Though the Bulli road to Sydney had improved, water transport was still than haulage by bullocks or horses. The ports at Shellharbour, Kiama, and Ger had been more prominent in shipping cedar, but Wollongong became much shipping off the Illawarra produce. Bourke visited the area in 1834 and the to of Wollongong was laid out on land bought back from Throsby's grant, with a p for a breakwater enclosing a boat harbour, though this was not built. The carg were much bigger than goods and equipment brought in so that most of th arrived in ballast, dumped into the small bay. When Barney was designing the C Quay scheme in 1837 he was also at work on a harbourworks design for Wollo and work on the stone breakwater and wharf began immediately, with hund convicts marshalled in work parties to excavate the basin. The biggest stones g from the floor of the basin where hauled to the pier, while the spoil was ca make a road from the town, round the head of the bay to the new wharf. Th took six years, using the diving bells and other equipment from the Quay, a hard labour of convict gangs. Halfway through the *Sydney Morning Herald* s progress, or perhaps mollified the impatient:

The excavation of the basin through solid and intensely hard rock was most laborio was the damming against such a force and constant pressure of water an easy matte no schoolboy work; nor was the laying of the foundation of the pier, nor adjust facing with cut stone by means of the diving bell a light easy task.¹¹

After the harbour was finished in 1844 the Illawarra became Sydney's dai William the Fourth its milkman, bringing butter, cheese and fresh milk in five from Wollongong harbour to the Market Wharf. A defect in the machinery ma paddle-wheel clatter after every few strokes and children, running from houses the waterfront at Darling Harbour down to the wharf greeted the 'King Billy' v chant of 'Prime Wollongong butter, butter, butter' as the vessel noisily churme water running up to the wharf. Colliers made a regular run too, as Sydney's ne coal rose steadily with increased use of steam engines, the opening of a gas v and domestic use as the population of the city burgeoned. While high prices er aged the opening of three mines in the Illawarra, lack of facilities made lo difficult and costly. Coal trucks ran down gravity tramways from the mine sha the escarpment to jetties such as that at Coalcliff, where there was little prote from wind or waves for the old sailing ships used as colliers on this run.¹²

The vast quantities of shell which gave Shellharbour its name provided lin Sydney from the first, and farms had replaced cedar forests by 1843 when Cai Chisholm arranged for twenty-three emigrant families to settle there. The tov Shellharbour was surveyed in 1851 and six years later a flour mill was operatin the few years of wheatgrowing in the region. Coastal vessels regularly called at small ports and Public Works built a wharf at Ulladulla in 1858. The main cargo was still timber—turpentine logs for the piles and blackbutt and spotted gum fo

¹⁰ *Blue Book* 1861; AONSW 2/893, 2/894; HRA I, 26, p. 149; NSWLAV&P 1856-1857, 1, p. 581; Bruce Ryan, 'Towns and settlement of the south coast of New South Wales', ANU, PhD thesis, 1965, pp. 32, 45ff., 79; Gallagher, op. cit., pp. 23-7; Jeff Toghill, *Ghost ports of Australia*, Sydney, Macmillan, 1984.
¹¹ SMH, 16 December 1841; *Blue Book* 1840; *Colonist*, 28 July 1836; *Sydney Monitor*, 23 May 1838; G.W. Gardiner-Garden, *Port of Wollongong*, Wollongong, Illawarra Historical Society, 1975, pp. 12, 17; D.N. Jeans, *An historical geography of New South Wales to 1901*, Sydney, Reed, 1972, pp. 101f., 127.
¹² SMH, 11 July 1854; Jeans, op. cit., pp. 130, 306; W.J. Gould, 'William the Fourth', NHDHSJ&P 1, 7, 1947, pp. 83ff.

as the Hornby light to mark the extremity of the southern headland of Port Jackson, the decision prompted by the wreck of the *Dunbar*.

Moriarty responded to the demands of the Chamber of Commerce that debris be cleared from the coal channel—the main shipping lane in the harbour—by emphasising that his ‘full plan of improvement’ was needed, and that it was useless ‘to remove a few heaps of ballast . . . unless measures are taken to prevent the sand accumulating in other places’. He placed his ambitious plan in the grand company of the British harbour engineers Smeaton and Telford and spoke persuasively in influential circles such as the Royal Philosophical Society in Sydney, where he gave a paper in 1861, republished in the *Newcastle Chronicle*. When local mine proprietor Alexander Brown travelled to California and San Francisco to promote coal exports in the 1860s, he took with him an engraving of Moriarty’s plan for Newcastle harbour, despite this being evidence of what might be, rather than what was.¹⁸

This comprehensive plan was far more ‘costly and stupendous’ than the one that Debenham had dismissed for the Crookhaven and Shoalhaven entrance. The young engineer defended his plan before a Select Committee of the Legislative Assembly in 1856, pointing out that limited sheetpiling operations at ‘the flats’, the mudbanks around the islands near Fullarton Cove, had scoured deep holes in some places and shoaled others, twisting the river into an unnavigable bend. He emphasised that only a comprehensive design coupled with close observation of the behaviour of the river could improve navigation as ‘Water is such an uncertain thing that I defy any man to tell where it will work’. The Legislative Assembly approved the plan in 1858, soon after Moriarty was appointed the first Chief Engineer for Harbours, with E.W. Geary succeeding him as resident engineer at Newcastle.¹⁹

In 1857 the new Assembly passed a Tonnage Duties Act to defray the cost of Moriarty’s Newcastle harbourworks, and to fund a lighthouse on Cape St George at Jervis Bay. Although there were precedents in the other colonies, New South Wales had not charged shipping dues since 1832, when maintenance of the Macquarie lighthouse was funded in this way. Newcastle shippers and businesses protested against the new impost vigorously, pointing out that funds for construction of Circular Quay had come from general revenue.

The changes being wrought in the topography of the river as a result of Moriarty’s plan were matched by the changes the massive harbourworks project brought socially and economically to the region. The area behind the Queens Wharf was reclaimed with sand from the sandhills outside the town, and in 1858 the Great Northern Railway was extended from Maitland right to Queens Wharf, where new efficient steam cranes were installed for coal loading. The huge labour force for the harbourworks doubled the population of the town between 1856 and 1861 as families arrived, and businesses developed quickly in parallel with the port facilities. Work on the Bullock Island Dyke started in 1861 and within a year enough of the wall was built up with ballast tipped onto the mudflats to hold sand excavated by the colony’s new ladder dredge, the *Hunter*, and pumped behind the wall, and wharfage construction along the line of the ballast wall began.²⁰

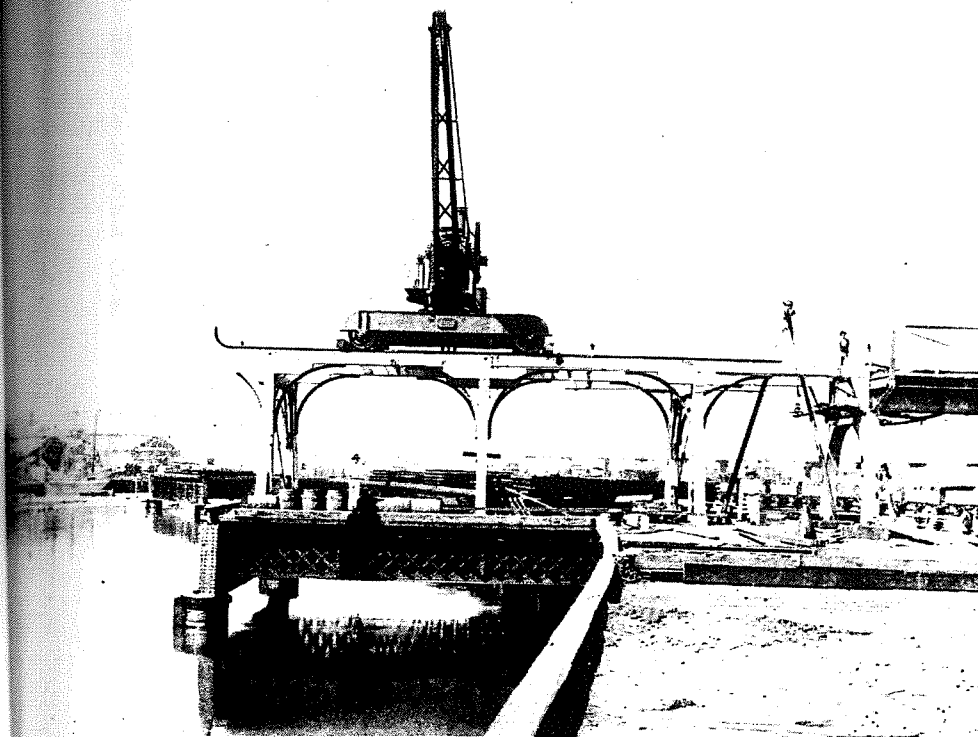
The future London

No other harbourworks rivalled the three Barney projects—the Quay, Wollongong harbour and the Macquarie Pier—but northern electorates like those in the south continued to press their claims for ports. The bar at the Tweed River entrance frequently trapped vessels—when the *Coolangatta* and four other ships were held inside in the winter of 1846, the flat-bottomed vessel, laden with cedar, attempted to cross out and was grounded and wrecked on the bar. In the 1850s wool bales replaced cedar on the wharves of the Richmond and Macleay rivers, making Lismore, Casino Kempsey and also Port Stephens rivals for wool cargoes from the New England

18 AONSW 2/613, 2/614; Moriarty to Under-Secretary for Lands and Public Works, 4 April 1857, NSWLAV&P 1858, 3, pp. 665–670; Minutes of Select Committee, loc. cit., pp. 207, 209; *Newcastle Chronicle*, 21 and 24 August 1861; L. E. Fredman, ‘Coals from, Newcastle: aspects of the coal trade with California’, *AJPH* 29, 3, 1983, p. 442; Gordon Reid, *From dusk till dawn: a history of Australian lighthouses*, Melbourne, Macmillan, 1988, pp. 7, 12.
19 Report of the Select Committee on deepening the River Hunter, loc. cit., pp. 167ff.; Report on breakwater at Stockton, Report on steam dredge for Hunter River, NSWLAV&P 3, 1858, pp. 663–671.

20 *Blue Books* 1854–1860; AONSW 2/894; NSWLAV&P 1858, 3, pp. 665–70; J.W. Turner, ‘The development of the urban pattern of Newcastle: a critique’, *Australian Economic History Review* 9, September 1971, p. 189; Stewart, op. cit., p. 15.

An innovative iron wharf
was part of Moriarty's
redesign of Darling
Harbour, completed in 1887
(ML)



ors' attempts to have the new land gazetted as a housing development. Reclamation began at Rozelle Bay and at White Bay on the opposite side of Glebe Island. Public Works took over dredging and disinfecting this area after slow progress of a contract let in 1880, when foetid effluent from the abattoirs covered Rozelle Bay. Dredging and reclamation proceeded more efficiently when the colony's first sandpump dredge, the *Neptune*, was put to work. The sandpump dredge worked by suction, drawing sand up through long pipes rather than in buckets or grabs, then dumping it directly onto reclamation areas. This technique was used in Homebush where 500 acres of mudflats were reclaimed using fascine dykes first tested at Stephens, and at Long Cove. Neutral Bay's 'insanitary shores' were turned into a nucleus of a people's health reserve' by the *Neptune* in 1892. The dredge also converted Careening Cove from 'a fever plot to a miniature health imparting park'. While reclamation from dredgings was an efficient and economical form of reclaiming, in the harbour bays reclamation itself rather than navigation was the priority, the dredges effected a neat—and valuable—extension of the shores of the harbour, lined by walled edges.⁵

Harbour ports

Growing Sydney meant a growing demand for Illawarra coal; the buoyant prices increased use of the exposed ocean jetties privately built at Coalcliff, Bulli and Wombi. After Wollongong residents petitioned the Legislative Assembly for better facilities, Moriarty designed an inner basin to Barney's 1840s harbour, with three loading staithes and a government railway to link up with the company-built line from Mount Keira and Mount Pleasant. Excavation began in 1861, and when construction was completed, divers began the laborious work of clearing ballast from Barney harbour, and the sandhills were grassed and fenced to reduce the sand

The opening of the new Belmore Basin, named after the governor, was a major

⁵ *Blue Books* 1873–1887; PWDAR 1892/3 p. 3; SMH, 6 June, 31 July, 14 August, 7 September 1876.

Sydney; accordingly Illawarra was virtually isolated except for sea transport. Small sailing vessels brought to the settlers supplies of flour, salt provisions, tea, sugar, tobacco, rum, clothing and implements, and unloaded their cargoes as best they could at convenient shelters nearest the settlers. In exchange they loaded cedar and the produce of the land. And so it was that villages were established at these shipping points. As the productivity of the land consequent upon settlement and the resultant trade increased, boat harbours were built and these villages developed into the coastal towns of Illawarra.

WHERE IS ILLAWARRA?

Illawarra cannot be mentioned without conjuring up thoughts of the brave adventures of the 'first footers' in the district, but the oft told stories of them are outside the scope of this paper. However, something might be said about the boundaries of the Illawarra District which now exist only in a geographical sense.

Governor Macquarie in his despatch of December 12th, 1817 to the Home Government in connection with the District, referred to "part of the Coast known generally by the name of Five Islands but called by the natives Illawarra" and went on to say "between Illawarra and Port Jarvis there is another very extensive Tract of fertile Land". However, the territory of the Illawarra District Council incorporated in 1844 extended from the coast to the Illawarra Range from the vicinity of Bulli to Jarvis Bay. Andrew Garran's Picturesque Atlas, published in 1886, described the district as being "the rugged strip of coast land extending from Coalcliff on the north to Broughton Creek on the south". Broughton Creek was the former name of Berry. The Municipality, and later Shire, of Central Illawarra and the Municipality of North Illawarra existed for many years until those areas were incorporated in the City of Wollongong in 1947. It is now generally conceded that Illawarra more or less contains the area between the Illawarra Range and the sea from and including the amphitheatrical bight in the mountains at Stanwell Park to the northern bank of the Shoalhaven River.

SETTLEMENT BEGINS AT WOLLONGONG.

Settlement first occurred at Wollongong early in the famous Waterloo year 1815, when Dr. Charles Throsby established a post near the freshwater lagoon which was to function as the future town water supply until the turn of the century. Dr. Throsby had heard from natives in the neighbourhood of his farm at Glenfield, near Liverpool, that there was plenty of grass and water on the coast in the vicinity of the "Five Islands". In exploratory trip made by the Doctor, accompanied by two white men and two native guides, confirmed the information. Upon his return to Liverpool, he promptly mustered a mob of

cattle and drove them down the mountain by the track at Bulli which his party had cut on their earlier visit. Dr. Throsby erected a stockyard near where St. Francis Xavier's Church now stands and a stockman's hut close to the present junction of Smith Street with Harbour Street. (Re-located in 1950 by B.T.Dowd, F.R.A.H.S., from Surveyor James Meehan's Field Book No.119.) This hut became known as 'Throsby's Hut' and, as it will be seen later, was the site of a historically important event.

Reports of the new approach to Illawarra soon spread, and Governor Macquarie, upon hearing of the new grazing lands, decided to make the district at Five Islands available for settlement. Upon Macquarie's instructions, a party headed by the Surveyor-General, Lieut. John Oxley, and his Deputy, James Meehan, set out in June, 1816 to examine the new country and entered Illawarra apparently by Throsby's track at Bulli. Meehan's Field Book provide details of the journey and records the bearings and distances of the traverses he made. He stated that he reached 'Mr. Throsby's Hut' on June 19 and, in fact, he recorded its position exactly. From thence he traversed Wollongong Head, although it was then not named. The survey was interrupted by bad weather, but some work to the south of 'Tom Thumb's Lagoon' was carried out. A delay due to a shortage of provisions occurred, and as the entries in the Field Book ended on June 28, it is presumed the party then returned to Sydney.

Later in 1816, the Sydney Gazette of September 28 reported: "Several gentlemen have removed their cattle thither (to Five Islands), as the neighbourhood affords good pastures: and it is to be anxiously hoped that the stockmen in charge of the herds may be able to maintain friendly footing with the natives that at present exist."

On November 27, Oxley and Meehan arrived back in the district to continue their survey and to make out the grants that had by now been promised by Macquarie. The prospective grantees had been invited to meet the surveyors on December 2 "at the hut of Mr. Throsby's Stockman" to have their grants allotted. During the five days, 5th to 9th December, the five first and well known grants in Illawarra were located for Richard Brooks, George Johnston, Andrew Allan, David Allan, and Robert Jenkins, in that order. All of these grants were southerly from 'Tom Thumb's Lagoon'.

Cedar was being cut on the Shoalhaven as early as 1812, and there is little doubt that, if not before, certainly not long afterward, areas in Illawarra close to shipping points suitable for the small sailing vessels engaged in the trade, were being worked. It can be well imagined that the sandy beach in Wollongong Harbour was first used as a loading point for cedar. All timber on Crown lands was reserved and the taking of cedar had been forbidden in 1802 except by the Governor's special permission. In

later years, however, little restraint seems to have been imposed on the trade until a Government order was published on August 14, 1819 stating that persons, bond and free, had for some time illegally resided in the districts of Appin and Illawarra and "there cutting down, sawing, and clandestinely transmitting from thence large quantities of cedar and other timber, the property of the Crown." Persons found in possession of cedar or cutting or removing it from these districts were to be prosecuted. Early the following year, it was announced that specified quantities could be cut, upon application, and the granting of permission.

During the years immediately following, the cedar trade grew apace, and the men who worked in the industry, some for employers and others on their own account, were generally a pretty tough lot. They lived a life of nomadic character, for when a stand of trees was cut out they passed on to another. As previously mentioned, some of the timber was transported to Sydney by sea, but some was humped up the Range by the men and loaded on to bullock drawn drays. This, of course, was before the advent of roads into the district, suitable for wheeled vehicles. It is generally agreed that although the cedar getters denuded the country of an asset, which was not replaced, they assisted, in the early stages, the conversion of Illawarra's dense forest lands into the paddocks under crops and cultivated grasses of later years.

About 1817, Dr. Throsby had a small lot of his fat cattle driven to Sydney for slaughter, and as a result "Five Islands beef became very celebrated". The place became overstocked, and in 1820 he had his cattle removed to Bong Bong, his nephew Charles Throsby Smith aiding him in the task. Charles Throsby's occupancy of the land in the vicinity of Wollongong Harbour must have been of a permissive character, because it was not until March 1825 that Surveyor James McBrien was instructed to mark out 300 acres for Charles Throsby Smith "at Mr. Throsby's old station on the coast". C.T. Smith is reported to have said that "he came into the district to look at a stock station belonging to his uncle, and when he saw this place with its little boat harbour, he had resolved to settle down here if he could. At last he pitched his tent here in 1822". On another occasion he said "I located myself hereabouts with my wife, and four Government men (convicts) and commenced clearing the land, in defiance of the blacks, who, at times, were disposed to be very troublesome. I always, however, treated them with great kindness and we soon became great friends".

Early in the same year, Governor Macquarie made a tour of Illawarra and there is no doubt that he entered the district at Bulli by way of Throsby's 1815 track, and travelled along what became known as Cliff Road, passing the harbour on his way southward.

WOLLONGONG IS FOUNDED.

In July, 1826, Captain Bishop and a small detachment of the 40th Regiment were established in the Illawarra on David Allan's property at Red Point. The Captain was appointed Commandant, Civil and Military, in the Five Islands District, and two constables were assigned for his assistance. He was instructed to protect the settlers from the depredations of the bushrangers and vagabonds of every description, and besides being required to send to Sydney under military escort all prisoners of the Crown at large, he was to see that no cedar was taken from government reserves except by persons duly authorised.

The Sydney Gazette on July 5, 1826, after referring to the appointment of Captain Bishop, said :-

" We have not yet heard the name that is to be given to the new and first settlement that has ever founded to the south-west of the Colony."

However, the Surveyor-General, John Oxley, used the name of Wollongong in December of that year when he reported that it was one of the principal ports for the cedar trade in Illawarra, and this seems to be the first occasion on which the name was used officially.

The Military post was not long established at Red Point when it was more conveniently located at Wollongong, the site being where the gaol and court house fronting the harbour were built later. The soldiers, who were spoken of at the time as "lobsters" because of their red coats, lived in tents until a party of convicts sent to Wollongong, built barracks and a house for the Commandant. The opening of the barracks on July 27, 1830 was the occasion of a dinner to which the friends of the detachment were invited. Until the advent of the barracks, the Commandant in his role as Magistrate of the district, had held his court in a tent and the barracks were used for this purpose, as required, until the first Courthouse was built by George Brown in 1834.

In 1831, John Cunningham established a shipyard on an acre of land near the mouth of the Basin as it now exists. He built a number of sailing vessels.

Instructions were issued to Surveyor W. R. Govett in January, 1829 for the preparation of a plan of the intended township at Wollongong, and he did some work in connection with it. Surveyor Elliott carried on some further work on it in 1832/33.

EARLY ROAD COMMUNICATIONS

Severe floods in December, 1833 prompted strong complaints in the Press early in 1834. An extract from the Sydney Gazette of January 14, in 1834, reads :-

"....the present situation of the district required the immediate attention of the Government to cause the roads and bridges to be repaired, for at present all communications with the boat harbour have almost ceased, by any means, but entirely so by the settlers' drays and carts, who are unable to convey the small remains of their hard earned industry to any market."

"Roads" was the generic name over-generously applied to the bush tracks of the day, and the bridges were but frail improvisations. A correspondent to the "Sydney Herald" on March 3rd, 1834 had this to say :-

" The district of Illawarra, lying within 35 miles of the town of Sydney can now only be approached by a circuitous route of about 70 miles, and then only on foot or horseback. There is no public road even marked in the district or through it - the inconvenience, annoyance and litigation this causes to the inhabitants you can easily conceive."

He complained that the revenue had been defrauded of more than £100,000 for cedar taken from Government lands, and then went on:

" Had a moiety of this sum been laid out for the improvement of this district.....it would have run out a pier into the harbour and made a macadamised road to Sydney, shortening the distance one half."

In April, 1834 the Governor, Major-General Sir Richard Bourke, visited Illawarra with a view to ascertaining "how the district could be best opened by roads and its communication with the Sydney market improved." He gave this explanation of the purpose of his visit, in reply to a petition presented to him by a goodly number of the inhabitants asking for roads and safe harbours in the district. The Surveyor-General, now Major (later Lieut.-Col. Sir) Thomas Livingstone Mitchell, who accompanied the Governor on the visit, set about implementing his instructions, and as a result the survey of the township was completed later in the year. Notice of the fixing of the site for the town of Wollongong appeared in the Government Gazette of November 26th, 1834, and Mr. H. F. White reported in December that he had staked out the streets in the presence of Mr. C. T. Smith. Provision was made in the 1834 plan of the township for a long breakwater, some-

what south of and parallel to the present main breakwater on which the harbour lighthouse stands, but its construction did not proceed.

Hitherto, travellers from Sydney to Illawarra came via Campbelltown and Appin. From there they either followed a rough bush track to Bulli, descended the Range by Throsby's track and followed the coast to Wollongong, or went on to cross the Cataract River and entered the district by O'Brien's Road which passes over Mt. Nebo and comes out at Figtree. As a further result of Bourke's visit, Mitchell planned the Mt. Keira Road which partially followed O'Brien's Road, but provided an earlier descent into the district by way of Mt. Keira, coming out at West Wollongong at the Cross Roads. This road was substantially along the route of the present Mt. Keira road, and was the main approach to the Coast for many years. Surveys for the road from Wollongong to Bulli and from Wollongong to Mimmamura, via Dapto, were also carried out. The Mt. Keira Road and these coastal roads were laid out in 1835/6 with convict labour. For the reason that a port's facilities and its access roads are complementary, mention has been made of the early main roads of the district.

COMMUNICATION BY SEA

By the early thirties, a few farms had been established in Illawarra, the larger holdings being worked with convict labour. One large landholder, James Stares Spearing, was an early petitioner for a road to serve his farm at Paulsgrove on the slopes of Mount Keira. The crops grown in the district included wheat, maize, oats, potatoes, onions, turnips and tobacco. Sheep and pig raising and the production of wool and pork, though on a small scale, was quite important to the district. Surplus produce was taken to "the beach" in the bay at Wollongong, and there shipped to Sydney in the small vessels ranging from 14 to 30 tons trading to the embryonic port. Although many of them came in ballast which was emptied into the bay to its detriment, they brought all sorts of supplies for the settlers. On the occasions the surf was heavy, loading or unloading a ship was hazardous and was often abandoned. In 1834, "Sophia Jane" (156 tons) which arrived in Sydney from England in 1831, being the first steamer to come to New South Wales, visited Wollongong. However, it was not until 1839 that the short lived Illawarra Steam Packet Company was formed, and its steamer "Maitland" inaugurated the first regular steamship service between Sydney and Wollongong.

Construction of the proposed breakwater provided in the 1834 plan did not proceed, apparently for the reason that all the available labour was required on roads and other government

work considered as being more urgent. The newspaper "The Colonist" on July 28th, 1836 devoted a leader to the district under the title "The Southern Settlements - Illawarra" from which an extract is quoted :-

"The settlement of Illawarra, which is the first we meet with along the Coast to the southward is rapidly rising into importance, and the town of Wollongong is already assuming the appearance of a thriving village."

The writer considered that the proposed breakwater would rather deteriorate than improve the harbour, because if it were erected gales would cause the sea to choke the harbour with sand. He suggested an alternative :-

"A few hundred yards to the southward of the harbour there is a pretty large lagoon which might easily be converted into an excellent wet dock and with which a permanent communication might easily be opened up from the harbour, the water-way being protected with strong stone walls and flood gates. All that would be requisite to effect so prodigious an improvement to the district of Illawarra would be the labour of a few hundred convicts for a few months...."

The large lagoon referred to was Wollongong's main source of water until it was supplied from the Cordeaux River in 1902. The lagoon was filled in with sand in the early nineteen thirties as an unemployment relief project.

WOLLONGONG'S FIRST HARBOUR BASIN IS BUILT.

Captain (later Lieut.Col.) George Barney, who is remembered for his civil engineering work in New South Wales, was instructed in February, 1837 by Governor Bourke to carry out the harbour works at Wollongong. A basin with a pier forming its northern side was substituted for the breakwater proposed in the 1834 plan. Later in the year about 300 convicts, accompanied by a guard of soldiers under Captain Plunkett were sent down to construct the basin. The convicts were housed in a stockade which they erected on Wollongong Head. This headland continued to be known as Stockade Point until a flagstaff was erected thereon, when it was called Flagstaff Point or Flagstaff Hill, and in later years Signal Hill. There is also a Flagstaff Hill at Unanderra on which there was once a flagstaff used to relay the signals from Wollongong. By this means the folk of the district became aware of the shipping movements and were thus able to have their produce at the harbour in good time for shipment.

Work commenced on the Basin on December 18th, 1837 and a writer in "The Sydney Monitor" of May 23rd, 1838, who had visited Wollongong in the steamer "William the Fourth", said the progress of the work was "highly creditable to the directing officer." He gave the dimensions of the proposed basin as 100 ft. long, 35 ft. broad, and 14 ft. deep, and explained that the larger blocks of stone excavated from the Basin were deposited on the Pier and the rest of the spoil "carted by the gangs to form a marine road round the sandy head of the bay which leads from the town to the intended dock". Apparently, after construction commenced it was decided to increase the dimensions of the Basin, presumably to cater for the increasing trade of the port beyond that anticipated in the original design. Dr. George Underwood Alley in an article contributed to "The Sydney Morning Herald" of December 16th, 1841 said "Its dimensions are, from the point of the pier to the bank of the basin 300 feet; and from the same point across 350; the Basin itself is 150 feet broad at its base...at high tide there will be 14 feet of water in the Basin and eight feet at low tide." These measurements are consistent with those of the existing portions of the first basin and pier. The correspondent said that the first stone was laid by Mr. Cronin, the Superintendent of the work, on May 23rd, 1839, and went on to say: "The pier is very neatly faced with cut stone and is finished in a very workmanlike manner." In referring to the work associated with the project, Dr. Alley said -

"the excavation of the basin through solid and intensely hard rock was most laborious, nor was the damming against such a force and constant pressure of water an easy matter; 'twas no schoolboy work; nor was the laying of the foundation of the pier, nor adjusting the facings with cut stone by means of the diving bell a light or unlaborious task."

Dr. Alley prophesied :-

"Wollongong will not always remain a mere commercial entrepôt, or port for export of agricultural produce only; it has the means within itself of becoming a manufacturing town."

On April 9th, 1842, "The Sydney Morning Herald" reported :

"The second or outer dam, necessary to complete the excavating of the basin of Wollongong Harbour, is within a few days of being completed, when the tide at low water will be under command, the remaining work will be comparatively light and not so precarious."

A correspondent to "The Sydney Morning Herald" of November 25th, 1844 wrote :-

"The harbour at Wollongong may now be considered as completed. The houses in the stockade have been sold by the Government; that occupied by Major Macpherson and subsequently by Captain Ramsbottom was purchased by Dr. Cox for £9.15.0d. It is intended to be transferred to an allotment at Kiama".

The work on the pier, the basin and its approaches took almost seven years to complete and cost in the vicinity of £3500.

Mention has already been made of the Illawarra Steam Packet Company which was formed on May 14th, 1839 and its steamer the "Maitland". In August the same year, arrangements were made for the formation of The General Steam Navigation Company to merge the interests of the Illawarra Steam Packet Company and the Brisbane Water Steam Navigation Company. The "Maitland" was replaced by the new Company's "William the Fourth" which traded to Wollongong for many years. This steamer was known by the residents of Sydney and Wollongong as "King Billy" or "Old Billy". "Tamar", another of the Company's steamers, was visiting Wollongong twice a week in 1841, although at this stage the Basin was still under construction.

ILLAWARRA'S FIRST COAL MINE IS OPENED.

James Shoobert, a retired sea captain who had traded to Wollongong prior to taking up residence in the district, opened a coal mine at Mount Keira in 1849. The mine, the first in Illawarra, was about 100 feet lower than the present Osborne Wallsend Colliery which opened in 1857. An event of historical importance took place on August 27th, 1849 when a delivery of coal in a number of horse drawn carts was made from the mine to the steamer "William the Fourth" in the Basin in Wollongong Harbour. In the Forties, agriculture, though of continuing importance, commenced to give way to the dairying industry which throughout the decades to follow was to assume a major position in the pursuits of the district. However, the advent of the coal industry in 1849 marked the commencement of the dominant primary industry of northern Illawarra. Dominant, indeed, since the great secondary industries of the district came into existence because of it and must co-exist with it.

TRADE AND SHIPPING INCREASES.

The Kiama Steam Navigation Company came into being in 1852 and was incorporated by Act assented to October 3rd, 1853. The Company owned the "Kiama" which visited Wollongong. Another Company, The Wollongong, Kiama, Shoalhaven Steam Navigation Company, owners of the "Nora Creina" and the "Illawarra" was amalgamated with the

Kiama Company in 1857 to become in October, 1858 "The Illawarra Steam Navigation Company," the forerunner of the well known Illawarra and South Coast Steam Navigation Company Ltd. which was incorporated in 1902. The passenger and freight trade, particularly between Wollongong and Sydney was rapidly increasing in the 'fifties' to the extent that a second pier was built in 1856. This was a timber structure projecting from the southern side of the Basin.

"By the plough and the produce of the dairy we prosper". These words were used by Thomas Garrett in 1856 in his paper "The Illawarra Mercury" on the anniversary of its first birthday. His statement is readily proved on reference to a summary of the exports for the quarter ended September 29th, 1856 published in the paper. The predominant item was 2992 kegs of butter each 50 lbs. at 1/6d. per lb., valued at £11,320 out of a total of £18,000. Other items included in the summary were livestock, bacon, pork, hides, leather, tallow, wheat, flour, bran, maize, barley, poultry, eggs, onions and potatoes. Noticeably small were the shipments of cedar and other timber. The cedar trade had fallen off to a mere trickle.

SEA BATHING IN 1856.

In 1856 the columns of "The Illawarra Mercury" relate that Edward Johnson, the licensee of the Brighton Hotel, which was situated on the corner of Cliff Road and Harbour Street, obtained a permissive occupancy of part of Brighton Beach, which was opposite his house, for the purpose of erecting baths "to enable the inhabitants and visitors to Wollongong to enjoy sea bathing, in security and privacy." Although he was unsuccessful in forming a company to undertake the venture, with his own resources he built the bathing machine "Mermaid", measuring ten feet long, five feet six inches wide, and fitted with seats. After a brief postponement, due to inclement weather, the machine was launched on January 5th, 1857. Johnson claimed that his was the first bathing machine in New South Wales. Single baths were a shilling each and children half price. The venture was moderately successful.

While this sea-bathing venture was being developed, Samuel Russell, the proprietor of another Wollongong hostelry in the vicinity of the harbour, the "Royal Marine" Family Hotel, opened a list for a public subscription to a fund of fifty pounds to be expended in improving and repairing the existing ladies' bathing-house at the Flag Staff Point, otherwise then known as Stockade Point. Mr. Russell claimed that ten years earlier, he had, by advertisement, circulated the name of Wollongong as being "The Brighton of the Colony". Incidentally, it was Governor Bourke who first likened Wollongong to Brighton.

While Russell wished Johnson's company every success, he

suggested a number of improvements. These consisted of a hand rail down the path leading to the place, the bathing houses to be removed to a better place and repaired, the large stones to be moved so as to form a barrier to break the violence of waves when the sea was rough, and a fence all round the cliff top to prevent persons overlooking the place. He said that the Lord Bishop of Sydney "when stopping at his house with his amiable lady" had honored him by allowing himself to be put down as a subscriber for five pounds.

Tenders were called for the work and some improvements were effected early in December, 1856.

A reprint of a contribution by C.S. to the "Sydney Morning Herald" appeared in "The Illawarra Mercury" on December 8th, 1856. The following extract is quoted :-

"Among the rocks below the hill, whereon the Flagstaff has been erected, there is a beautiful and sequestered little cove, well sheltered by most romantic looking rocks, from the swell of the ocean. Two or three dressing rooms have been erected, and at quiet hours ladies occasionally resort there to bathe. But it is at no time safe for them to do so without first posting a trustworthy sentinel upon the top of the hill, from whence full view of this cove is commanded and which is, at times, a place of very public resort. Now a small strip of eye-proof fencing would answer better than half a dozen sentinels. Add to this something in the shape of a gate across the path, by which the cove is approached, and it would be one of the finest retreats that mermaid could desire. Bathers of the sterner sex resort to nooks among the rocks to the northward of the pier. There are many places here where a man can either wade or swim, according to his capacity; and a swimmer, if he has strength and pluck enough to go among the rollers, may enjoy himself amazingly. But a few dressing boxes are badly needed."

After nearly one hundred years, though seldom used now, these ladies' baths still exist. They are known as the "old Chain Baths", so named because there was once a chain spanning the barrier built between the rock formations to enclose the water.

ROADS, COAL AND MAILS.

In 1856/7 the steamers "Kiama", "Illawarra" (150 ft. long), and "Nora Creina" were engaged in the passenger and freight trade to Wollongong, but there were complaints about the irregularity and want of punctuality of the service given. Due to the prolonged unsettled weather in the early months of 1857, the roads of the district

were "perfect quagmires at times for days on end" and the road over Mt. Keira to Appin via Broughton's Pass was described as "shamefully dangerous". As a result there was "frequent non-delivery of mails and almost usual irregularity". Because of the state of the roads, mails were forwarded to Sydney on March 13th, 1857 by the steamer "Illawarra". This was the first time mails were so despatched to Sydney.

Early in April, 1857, as already mentioned, the Osborne Wallsend Coal Mine was opened at a point about 100 ft. above James Shoobert's workings at Mt. Keira. Among the exports from Wollongong for the fortnight ended April 11th, comprising dairy, agricultural and other produce of the land, there appears the item "6 sacks Mount Keira Coal". On the 16th, the Mine Manager, William Robson, took $3\frac{1}{2}$ tons to the wharf for use by the "Illawarra", which sailed to Sydney the following day. In September it was reported that the steamers were using 60 tons per week and that a considerable quantity was being exported to Sydney. 420 tons was exported during the fortnight ended September 12th. About this period the ketches, "Absalom", "Warlock", "Annie" and "Vision", some of them engaged in the coal trade, and James Shoobert's "Elizabeth Cohen" were visiting the port. "Old Billy" put in an appearance in September.

At this stage, coal was being carted from the mine to Wollongong for export and local consumption for 6/-d. per ton - household coal was retailed at £1 per ton and blacksmith coal at 16/-d. per ton. Occasionally, deliveries ceased due to the state of the roads. In June, 1858 a weighbridge erected for the Kiama Steam Navigation Company came into use, when twenty carts of coal were weighed.

A SEA TRIP TO WOLLONGONG AND SOMETHING ABOUT ITS FIRST COURT HOUSE.

C.S. contributed an article relating to a trip to Wollongong and which was published in the "Illawarra Mercury" on December 8th, 1856. He said :-

" The passage down was an unusually rough one - with a nasty sea and a stiff head wind. Never had landsman his bile pumped more thoroughly out of him in eight short hours; and I believe all my fellow passengers by the Illawarra were in similar condition.... Wollongong looked dull enough when we arrived for it was a cheerless sort of afternoon. Yet there was, as usual, a tolerable number of starers at the pier. But I never cared much about being stared at, and even if I had been irascibly disposed thereat, I had just then no bile to be excited.....A walk round Wollongong is by no means a formidable undertaking, and of improve-

red light is exhibited, visible for a distance of 17 miles in clear weather. Red Light is shown in two sectors to warn mariners of their too close approach to Five Island and Bellambi Beefs.

In 1938 Australian Iron & Steel Ltd., who had acquired Mount Keira and Mount Pleasant Collieries, gave the Mount Pleasant railway land east of the Government Railway to Wollongong Council. Perhaps the last fact to be recorded is that ships of the Illawarra and South Coast Steam Navigation Co. Ltd. ceased calling at Wollongong in 1948.

It was said in 1902 that the people of Wollongong were proud of their toy harbour, but today very few of the residents of the City of Wollongong are even aware of the harbour virtually situated in a backwater as it is, and fewer still are aware of its one time importance. Let it be remembered that the harbour and its environs was the cradle of Wollongong.

And now, Mr. President, Ladies and Gentlemen, I desire to offer my appreciation and thanks to those from whom I have received the information to make this paper possible. In particular to the Mitchell Library and its staff, Mr. James Jervis, Hon. Research Secretary of the Royal Australian Historical Society, Mr. Wilfrid Musgrave, of the "Illawarra Mercury", Mr. Dudley Compton, of the "South Coast Times", Mr. F. Jolly, an officer of the Maritime Services Board, Mr. Edgar Beale, Mr. W. Parkinson, Mr. Arthur Leeper, Brother O'Malley, Miss Galvin, and Mr. Alec Fleming.

ments I saw none. Even the courthouse is still in the same rascally broken down condition. The direction which I remember having once given to this place will answer better than ever. It was something to this effect: 'Go toward the pier - seek out the most ricketty looking brick building in that vicinity, and when you have found it, you will also have found the Wollongong Temple of Justice.' "

A NEW COURT HOUSE AND A GAOL.

At that time plans were in course of preparation for a new structure, and it was decided that it should be immediately contiguous to the existing building. Tenders for the erection of the new building were called on February 16th, 1857, and there immediately followed unfavourable comment on the plan by the Illawarra Mercury, the paper's view being that the proposed building was altogether inadequate to the requirements of the district. Following representations to the "proper" quarter, an improved plan resulted. In May, the tender of William Stoddart, a Sydney builder, was accepted for the erection of the building for £1250, and the work was to be completed within six months. However, due to inclement weather the building was delayed, and it was not completed until early the following year. On February 1st, 1858, the Magistrates sat in it for the first time. The old building was subsequently demolished.

In 1859 the tender of McBeath and Bloomfield was accepted for the erection of a gaol. This building was immediately east of the Court House just built. In November, the Illawarra Mercury reported :-

' "This structure is all but ready for tenanting, but we are happy to say no tenants are awaiting its completion..... The building, if we except the bars in the windows, has almost an elegant appearance from the front, and its situation is one of the best in the town. There are six cells at present; but, should an extension, unfortunately, be required, such can be effected with facility, and without disturbing the proportion, so far as appearances are concerned, of the present building. "

IMPROVED HARBOUR FACILITIES ARE COMMENCED.

Wollongong's coal industry though in its infancy was making itself felt in the trade of the port, and in response to a petition of the inhabitants to the Government for improved harbour facilities, Sir William Denison, the then Governor-General, accompanied by Mr. E.O.Moriarty, the Engineer-in-Chief for Harbours and Rivers, came to Wollongong in July, 1858 to attend to this matter. At this time, the depth of water in the old basin was 9 ft. but due

to the incomplete removal of the coffer dam used in connection with the construction of the basin, some of the remains of the dam at the entrance reduced the depth to only 5'6". There were mooring chains across the harbour mouth and anchorage was unsafe. These mooring chains were affixed to stanchions let into the rocks on the western side of the harbour, and the remains of these stanchions are still visible today. In January, 1859, plans and estimates for additional harbour accommodation, prepared by Mr. Moriarty, were approved, and £26,892 was voted toward deepening to 10 ft. of the old basin, the formation of a new basin opening into the existing one, and the formation of a breakwater for the protection of the outer roadstead. The new basin was to be 300 ft. long, 102 ft. wide, and 10 ft. deep at low tide, and the stone excavated used for the formation of a breakwater. "Works of this character and magnitude were somewhat new to the Colony" and though tenders were invited twice, on the first occasion in December 1860, no satisfactory offer was obtained. As the Government could not get the work done under one contract, it reluctantly had recourse to a system of smaller contracts for labour only, the Government providing the necessary plant. Work on the project commenced in August, 1861 when the steamer "Kembla" brought down the necessary plant.

A TRAMROAD FROM MOUNT KEIRA TO THE BASIN.

Following the death in 1859 of Henry Osborne, the proprietor of the Osborne Wallsend Coal Mines, the property was leased to Messrs. William Robson, Thomas William Jackson, John Nixon and Andrew Tulip, who adopted the firm name of Robson & Co. These gentlemen constructed a tramway, $2\frac{1}{4}$ miles in length from the mines to a point 12 chains from the Wollongong-Fairy Meadow Road. The coal was tipped at its terminus and contractors carted it to the wharf for 2/-d. per ton. The tramway was opened on November 8th, 1859.

The partners desired to extend their tramway to the Basin, and as they could not obtain a lease of the lands over which the line would pass, satisfactory to themselves, they sought Parliamentary authority to construct the line. On the grounds that the completion of the tramroad was considered to be of great public benefit in promoting the supply of coal for local and general consumption, "The Mount Keira Tramroad Act of 1860" was passed (assented to on May 23rd, 1860).

The Act authorised the construction of the line, one chain wide and of 3'8" gauge, from the mines to its termination at the Government road (later known as Cliff Road), at a point $4\frac{1}{2}$ chains north-west of Harbour Street, nearby to where the Brighton Hotel stood. The line was authorised to pass through the lands of the late Henry Osborne, the Mount Keira Estate, Andrew Thompson, and Bustle Farm

WORK ON THE NEW BASIN PROGRESSES.

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During the progress of the harbour works, it became apparent that the original plans would prove inadequate "so rapid and wholly unprecedented had been the growth of the trade of the district, particularly the coal trade." Accordingly, the Government had to broaden its ideas of the port's requirements to meet the expansion in trade. In 1864, Parliament voted an additional £5,000 for increasing the size of the Basin from 300 ft. by 102 ft., to 455 ft. by 153 ft., and £3,000 for the construction of three high level staiths and railway connections from the staiths to the lines of the Mount Keira and Mount Pleasant Coal Mines. The staiths were platforms on the bank adjacent to the basin, elevated so as to empty the contents of the coal hoppers by means of chutes into the ships' holds. Because of the exclusion of vessels from the old basin during the excavation of the new basin, temporary wharf accommodation had to be provided in the form of a timber jetty 550 ft. in length. Hitherto, coal had been sent to Sydney in small vessels for purposes of transshipment to foreign ports, and to meet the berthing requirements of larger ships having deeper draught, Parliament was asked, in 1866, for £10,000 for deepening the basin to 18 ft. However, the inner basin only was deepened to 18 ft. and the other basin to 14 ft. at low water or spring tides. There is in existence an excellent photograph of the basin in construction, showing the coffer dam in position.

When completed in 1868, there were three staiths capable of loading 3000 tons of coal per day and there was 1748 feet of wharf frontage "enough for about 15 vessels", and the area of the two basins 3 acres.

COUNTESS OF BELMORE NAMES THE BASIN.

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After taking seven years to construct at a cost of £44,892 the new basin was opened on Tuesday, 6th October, 1868, and this was one of the great events in the history of Wollongong. A special reporter for the "Sydney Morning Herald" emphasised that - "Three great events - the Governor's visit, the Races, and the opening of the harbour coming together, created a most unusual commotion in the picturesque little town of Wollongong. The streets were thronged with visitors from the country and the public houses hung out signals of festivity in the shape of many-coloured banners".

On Monday, in the afternoon, His Excellency the Right Honourable Somerset Richard Lowry-Corry, Earl of Belmore, accompanied by the Countess of Belmore, Commodore Lambert, Mrs. Lambert, and

Captain Beresford were met at the foot of Plunkett's Hill with a large body of equestrians who escorted the party to Queen's Hotel in Market Square. The Vice Regal party had travelled overland and the meeting place, Plunkett's Hill, today is the hill in Corrimal on which the Church of St. Columbkille's stands, on the western side of Princes Highway with the cemetery and the Public School on the opposite side.

About 10 o'clock in the evening, the Government steamer "Thetis" arrived with other important persons, including Hon. James Byrnes, Minister for Works; Mr. E.O. Moriarty, Engineer in Chief of Harbours and Rivers; Mr. J. Whitton, Engineer in Chief of Railways; and Mr. Bennett, Engineer of Roads. The Steamer "Hunter" arrived from Sydney about 5 a.m. on the morning of the great day "with a multitude of visitors". The other vessels in port on the occasion were "Chr. George", "Comet", "Uncle Tom", "Rebecca", "Little Pet", "Spray", "Nowra", "Hirondelle", "Lurline" and "Lady of the Lake".

The official party embarked on the Thetis and the Hunter took on as many passengers as could be carried. The two vessels steamed half a mile or so toward the Five Islands, then returned to the Basin. Thetis glided to her berth and Lady Belmore named the basin "Belmore Basin" by breaking a bottle of champagne on the bow of the ship. A luncheon followed at the Brighton Hotel with Mr. Charles Throsby Smith, Mayor of Wollongong, as Chairman. Speeches were indulged in and after the function the Vice Regal party set off by road for Kiama. On the following day, the 7th, the Governor returned to Wollongong and held a levee at the Queen's Hotel.

Although the Basin was officially opened on October 6th, 1868, it was in use somewhat prior to this. Robert Houslar, the Officer in Charge of Wollongong Pilot Station at the time made this laconic entry in his Journal on the day of the historic event - "New Harbour opened by the Thetis".

Races were held on the three days, Tuesday, Wednesday and Thursday, on a course near Tom Thumb Lagoon, and very little work could have been done in Wollongong during the festivities because the coal ships did not commence to leave until the races were over. The winners may be ascertained on reference to the files of the "Sydney Morning Herald".

It is worth while now to look at a few figures to gain some idea of the volume of trade passing through the Port about this time. In 1867, coal exports, exclusive of bunker coal, amounted to 23,538 tons, but in 1868, the year in which the new

harbour works were opened, the tonnage advanced to 31,443. Ten years later, in 1878, the tonnage had all but trebled to 92,546. During the six months to October, 1868, an average of 68 vessels were cleared each month, or 17 weekly, and during the later three months 29 different ships made in all 199 visits. The steamers, Hunter, Kembla, Kiama and Illalong were the most frequent visitors in that order, and the remainder of the ships were mostly schooners and ketches. At this time, the steamers were catering for the passenger and general trade, while the sailing ships were mainly engaged in carrying coal.

THE BREAKWATER LIGHT IN WOLLONGONG HARBOUR.

One wonders what navigational aids were installed for use in connection with the first basin. Presumably a lamp affixed to the top of a standard erected on the point of the pier served the purpose. Be that as it may, late in 1871, it was reported that the new lighthouse erected on the extremity of the breakwater had just been completed, and would be lighted in a few weeks. The tower, which is 42 feet high, was described as having been designed by E.O.Moriarty, Engineer in Chief for Harbours and Rivers, and to have been constructed of $\frac{1}{2}$ " boiler plate by Joseph Mathers, of Sydney, under the direction and supervision of F.T.Rose, of the Harbours and Rivers Department.

The illuminating apparatus manufactured by Chance Brothers & Co., of Birmingham, England, in 1870, was originally lit by acetylene gas and showed a fixed light "visible from the deck of a steamer about 12 miles" (officially 10 nautical miles in clear weather). In 1916 the lighting apparatus was altered to provide a group triple flashing light, operated and lit with electricity. The flashing light went into operation on October 1st, 1916.

THE FIRST COKE MADE IN ILLAWARRA.

For many years in the coal industry, the slack or fines were unsaleable and great mounds of it accumulated at the mines. Fires caused by spontaneous combustion coked some of it. Patrick Lahiff, a colourful figure in the history of Wollongong in that among his achievements he built St. Michael's Church, opened Mount Pleasant Colliery, and was one of the contractors for the construction of the second Basin, is credited with having discovered the coking quality of the Mount Pleasant coal. He erected two beehive ovens near the sloping and broken land midway between the north-eastern end of the Basin and Pulpit Rock.

It is reported that the "Lady Emma" (123 tons) arrived on February 18th, 1876 and sailed on 22nd, carrying in her cargo 10 tons of coke - the first coke manufactured and exported from Wollongong. In 1877 small shipments were made to Melbourne, and in the following year a total of 44 tons was exported. During the existence of the ovens, their ownership twice changed hands and four additional ovens were built. The lease of the lands on which the ovens were built expired on December 31st, 1890, and they were demolished in 1892. These ovens had only been moderately successful, but they were the forerunners of the great coke making industry which was shortly to be established in Illawarra.

STILL MORE HARBOUR IMPROVEMENTS.

To meet the growing traffic of the Port, additional wharf accommodation and cargo handling gear was provided in 1880 by the erection of the well remembered Tee-Jetty, which was equipped with a crane operated by a steam winch and vertical boiler. The crane column was mounted on a substantial concrete base. Constructed of heavy timbers, the jetty commenced from a point between the basin and the breakwater, and ran in a westerly direction. A railway connected to the existing rail system, ran along the south-eastern side of the basin, at wharf level. By means of a triangle, the apex of which was near where the coke ovens were, connection was made to serve the north-western side of the basin and the Tee-Jetty. Because of the proximity to the sea of the railway serving the Jetty and to provide protection to the basin, a masonry sea wall was constructed. A stone in the wall bears the inscription "Erected 1881" which is now barely legible. The wall is twelve feet high, and runs from near the commencement of the breakwater to the cliff formation just beyond where the coke ovens were. A rubble embankment four feet high once connected the wall with Pulpit Rock. Another 12 foot wall was built between Pulpit Rock and the base of the cliff. The two twelve foot walls still stand and are in good condition, but all that remains of the Tee Jetty is the concrete crane base and column, providing a resting place for the ever present sea-gulls. "Old Pioneer", a contributor to the Illawarra Mercury, said in 1923 that the Tee-Jetty was in ruins, and no doubt it was afterwards demolished in the interests of public safety.

By 1885, besides the three staiths erected during the development of Belmore Basin, there was erected a fourth staith in line with the others and toward the head of the basin, and a high level staith for the coaling of the Illawarra Steam Navigation Company's steamers at their wharf on the south-western side of the mouth of the basin. Besides this, a workshop, store, and two steam cranes on the north-eastern side of the basin had been erected.

The Customs House of the Port was originally a small

weatherboard building on Brighton Lawn at the foot of Harbour Street, but when the Department of Justice moved in 1885 to the new Court House in Market Street, the old Court House became the office and residence of the Customs Officer. The small weatherboard building was moved to the rear of the old Court House and made into a kitchen, with the addition of a chimney. It is of interest to note that the Customs Officer at Wollongong, whose official title was Preventive Officer, had control of matters relating to trade and customs not only at Wollongong, but at Bulli, Bellambi, where there were two jetties, and later at Port Kembla where there were also two jetties, before it was developed as a port. He had assistants at Bellambi and Port Kembla, and an erstwhile officer, E. Potts, said that "a certain amount of dignity of office had to be maintained in this small though very conservative town" (Wollongong).

THE PORT APPROACHES THE PEAK OF ITS IMPORTANCE.

Following the improvements effected by 1885, the Port commenced to reach the peak of its importance when the tonnage and number of ships cleared through it was exceeded only at Sydney and Newcastle. A conception of the trade passing through the Port is gained from an analysis made from the Pilot Station's records for the year 1885, that is three years before the opening of the railway - Sydney through to Wollongong on October 3rd, 1888. During the year ended 31st December, 1885, no less than 1624 vessels aggregating a registered tonnage of 306,241 and having a carrying capacity of considerably more than that, were cleared through the Port. This represents an average of 135 vessels per month or 31 per week. The average registered tonnage of these vessels works out at 25,520 per month or 5889 per week. The import of merchandise and the export of the district's produce was very considerable, and, in addition, it is revealed that during the year under review cargoes of coal totalled 167,653 tons, exclusive of bunker coal particulars of which are not available. A substantial part of Sydney's butter supply came from the Wollongong District, the average annual export being 1,600,000 lbs.

Shipping figures for 1886 were even higher. During March of that year, taken as being indicative, 42 different ships, 19 of which were sailing vessels, made 165 visits to the Port, that is 125 by steamships and 40 by sail. The registered tonnage of these vessels totalled 28,656 tons and beside the general inward and outward trade the cargo coal lifted was 11,782 tons. Twenty years after the Basin was opened, though sailing ships were still very much in evidence, there was a noticeable decline in their number and tonnage, compared with the steamers visiting the Port.

Mention has been made of the exports from Wollongong since its settlement and something should be said about the dependence of the town and district on the ships for what they brought, other than general merchandise, before the advent of the railway to Sydney. They brought building stone for some of Wollongong's older buildings. For example, in October 1875 the "Little Pet" brought stone for the new Post and Telegraph Office which was being built in Market Street. This building, later superseded by the Post Office in Crown Street about 1891, is now the offices of some State Government Departments. The ballast brought by the colliers and other ships were used on the streets of Wollongong. Materials for the mines, such as machinery and explosives, and material for jetty, bridge and railway construction, including rails, sleepers, transoms, piles and girders, came by sea. Locomotives for Mount Keira and Mount Pleasant, and the locomotives for use in the construction and operation of the Illawarra line between South Clifton (now Scarborough) and Wollongong, which was opened for traffic on June 21st, 1887, all came in ships. The steamers "Kurrara" and "Kanahooka", each of 239 tons, registered, made a number of trips to Wollongong, bringing a couple of railway carriages at a time.

A SHADOW OF COMING EVENTS.

On February 27th, 1883, Mount Kembla Coal and Oil Company (limited) opened its jetty at Red Point (as Port Kembla was then known), which was connected by railway to its mine near Mount Kembla. The 1881 Act, which authorised the Company to construct its railway, also provided for a line to Wollongong Harbour connected to the Red Point line; however, this latter line was not built.

In 1887, the Southern Coal Company of New South Wales Limited also opened a jetty at Red Point which was served by a railway connected to the main Government line near Unanderra. When the Government line opened, the Mount Kembla railway was also connected to it. It is to be noted that both jetties were capable of providing accommodation for ships larger than those which were visiting Wollongong.

AN INNER HARBOUR IN TOM THUMB LAGOON IS PROPOSED.

In 1887, William Wiley, the Mayor of Wollongong, invited a few persons to meet him to discuss a scheme which he had formulated, relating to Wollongong Harbour. Arising out of the meeting, the Wollongong Harbour Trust League came into being. The League advocated connecting the Harbour with the main railway, developing a basin in Tom Thumb Lagoon connected with the Harbour,

and placing the affairs of the Port under the control of a Harbour Trust. Early in the following year, when the Committee of the League were developing their plans, a correspondent to the Wollongong Argus questioned the wisdom of extending the proposed canal (1½ miles long) to so great a distance as Tom Thumb Lagoon, and suggested that dues at 1/- per ton on the outputs of Mount Keira and Mount Pleasant would be insufficient to pay for maintenance. The League went on with its plans, and at a meeting of the Committee on March 3rd, 1889 prepared a memorial to the Colonial Secretary, Hon. Sir Henry Parkes, an extract from which is quoted :-

"The growth and expansion of the increasing mineral trade of Illawarra is hindered and retarded by reason of the small space and limited depth of Belmore Basin and Wollongong Harbour, which is consequently filled and dangerously overcrowded with vessels and steamers of too large a size and tonnage for the limited area of the Port. "

To lend point to the foregoing, the Pilot Station record contains the entry on June 13th, 1889 :

"Harbour full - no more could enter - stand off signals up."

THE WOLLONGONG HARBOUR TRUST.

The Wollongong Harbour Trust Act became law on October 1st, 1889, and the event was celebrated by a banquet to the Ministry. The Act empowered commissioners to be appointed to construct a convenient, safe and commodious harbour and to develop an extensive dock or basin in Tom Thumb Lagoon connected with the Harbour. Commissioners comprising the representatives of the shipowners, colliery owners, merchants and traders, the Municipality and the Government, met for the first time on January 3rd, 1890.

In the meantime, the Illawarra Railway, which had been operating in two sections - Sydney to Waterfall and South Clifton (now Scarborough) to Wollongong - became continuous upon the opening of the Clifton (Scarborough) Tunnel on October 3rd, 1888. The potential benefits created by the advent of the railway were not at first fully appreciated by the people of Illawarra nor by the Government of the day, as they seem to have visualised the railway mainly as an adjunct to the Port. The steps taken by the Government to connect the line with the Harbour seem to support this view, their intention being to transport the output of the Southern coal fields to the Harbour to meet the growing overseas export trade. In anticipation of acquiring that portion of the Mount Keira Railway east of the main line to the Harbour, the Government resumed on September 20th, 1889 the land on which to build a triangular junction of the Mount Keira Railway with

which Charles Throsby Smith had vested in a Trust. Furthermore, it was permitted that the line should pass over the Bulli Road, Keira Street and Corrimal Street. Bulli Road was the later name of the Wollongong-Fairy Meadow Road, and the point of crossing was nearby to where the Albert Memorial Hospital was opened on September 27th, 1864. Flinders Street is now the name of this part of the Princes Highway. It is of interest to mention that the extensions of Church and Kembla Streets through Charles Throsby Smith's lands, where they intersect the tramroad, had not then been carried out and Wilson Street had not been formed. In May 1861, the tramroad was opened and the coal was conveyed along it in horse drawn vehicles. The gauge of the line though authorised as 3'8" was built as 3'8½", and widened in the following year to standard gauge, viz. 4'8½".

ANOTHER TRAMROAD, FROM MOUNT PLEASANT TO THE BASIN.

In 1862, James Byrnes (later Hon. James - Minister for Public Works in the second and third Martin Ministries) and his brother, William Byrnes, Sydney Merchants, who were the owners of the Mount Pleasant Coal Mines, sought and obtained parliamentary authority to construct a tramroad. Under the provisions of the Mount Pleasant Tramroad Act of 1862, they were authorised to construct a tramroad, one chain wide from the north-eastern corner of Charles Throsby Smith's grant, thence running a distance of about a half mile (46 chains) in a southerly direction along the Government road and reserve on the sea coast to the intersection of the line with the tramroad from Mount Keira. Nowadays this location is from Stuart Park where Blackett Street joins Cliff Road, to Brighton Lawn, almost in front of where the Brighton Hotel stood. The Act was assented to on 17th December, 1862 and provided for a 3'8" track and required the tramroad to be constructed and brought into use within a year of the passing of the Act. The gauge of the track built was 3'8½".

From the description of the line covered by the Act, it would appear that the Byrnes Brothers had arranged by private treaty occupancy of the lands over which the tramroad passed from the Mount Pleasant Mines through to the north-eastern corner of Charles Throsby Smith's grant. Part of the line ran through what is now known as Stuart Park, which became public property on September 29th, 1885. Like the Mount Keira tramroad, coal was conveyed on the Mount Pleasant line, at first, in horse drawn vehicles.

The Mount Keira and Mount Pleasant tramroads were later connected to the rail system provided in the Harbour development scheme.

the main line. Whilst the Act enabling the purchase for £7,500 of the required part of Mount Keira line did not come into force until July 1st, 1890, the junction with the main line had been opened on April 10th. It was said that no trains ever ran from the main line to the Harbour, and no doubt this meant that no Government trains used the line. Coal from Mount Keira continued to be hauled over the line, and photographs show coal hoppers of the Southern Coal Company at the Harbour where they had arrived after switching from the main line to the Harbour by means of the junction.

A GREAT PROJECT FAILS

Returning to the affairs of the Harbour Trust, the influence of the Commissioners who had shipping experience is discerned in the Trust's decision to discard quite early the plan for a basin in Tom Thumb Lagoon, and to seek the advice of Sir John Goode, C.E., an authority on harbour construction who had visited Wollongong in 1885. When the new plans crystallised, the Trust proposed to form, by means of two breakwaters, a harbour enclosing an area of 107 acres at low water, north of Wollongong Head. The eastern breakwater was to run north from Pulpit Road and the northern one, in a nearly south-easterly direction from just south of Para Creek (now Fairy Creek). Substantial reclamation work was intended to provide access areas for three jetties parallel to each breakwater. Some evidence remains today of the start made of the northern breakwater nearby to Pulpit Rock. The project was estimated to cost £537,000. However, as finance was not forthcoming, it had to be abandoned. Early in 1893 work commenced on the more modest proposal of building a breakwater running north of the Breakwater Light, but this work, after a portion had been built, was also abandoned. This short breakwater, of which about 80 yards remains, seems to be the only monument to the short lived Wollongong Harbour Trust, which was dissolved later in 1895 at the request of the Commissioners. The control of the Port reverted to the Government.

THE HARBOUR FORTIFICATIONS

The Port of Wollongong shared with Sydney and Newcastle the importance of warranting fortification, and probably as early as the first Basin was built in the 'forties' guns of Waterloo vintage were mounted on Signal Hill. During a decade about the turn of the century, one of these guns was used as a one o'clock gun. Later, and until recently, it stood in front of the Town Hall. A picture of Wollongong Harbour published in the "Town and Country Journal" on February 2nd, 1873 shows these guns in position on the

Hill between the Pilot's Residence and the Flagstaff. In July, 1879, s.s. "Havilah" (164) tons brought three pieces of ordnance to Wollongong. It is probable that these were the muzzle loading 68 pounders facing north, between the Pilot's residence and the Flagstaff, on the 1885 plan of Wollongong Harbour prepared by Commander Howard, R.N. It is thought that these are the guns of 1861 vintage, now lying on the grass in front of the house on the Hill, which was the headquarters of the officer in charge of the fortifications at Cliff Road and Signal Hill. In 1890 a gun pit 45 ft. in diameter, together with access tunnel, and chambers for ammunition, stores and quarters for the gun crew, were built on Signal Hill. A then most modern 6" breech loading, pneumatic disappearing swivel gun was mounted in the pit. The access was bricked up and the pit filled in during 1950.

Not only was the port fortified, but it was also provided with a station and equipment for a Life-Saving Rocket Brigade. The Station was established between the Pilot's residence and the Battery Headquarters, and still exists.

SOME SHIPPING MISDEEDS

The Port was not without its shipping mishaps. The brig "Agnes" (104 tons) was wrecked on the breakwater on March 10th, 1877. On November, 1890 the ketch "Maggie" (37 tons) went on the rocks on the western side of the Harbour, and was abandoned to the underwriters. Due to the effects of a heavy gale and the sea-range in the Basin, described as "something terrific", the steam collier "Mt. Kembla" (449 tons) was sunk at her moorings to save her, on February 3rd, 1895. During the same year, and within a few months of each other, the schooners "Janet Price" and "Annie Bow" ran on the stones on the point of the breakwater, but were successfully floated off.

THE PORT OF WOLLONGONG DIES AND PORT KEMBLA IS BORN

The popularity of the Railway grew because it provided a means of transport quicker and more direct than by sea, and a portent of the waning importance of the Harbour was indicated in the announcement in 1895 that the Illawarra Steamship and Navigation Company would cease to convey passengers and would carry freight only. Moreover, building activities were moving away from the Harbour in the direction of the Railway. In 1895, Archibald Campbell, M.L.A., the Member for the district, sought from the Customs Officer statistics relative to the jetties under his control for a deputation which was to wait on the Premier and Treasurer, George H.